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LAMPIRAN 1

SENYAWA FLAVONOID DAN SUMBERNYA

Tabel VII. 1
Daftar senyawa Flavonoid dan sumber tanamannya

No.	Falvonoid	Sumber Tanaman
Flavon		
1.	Apigenin	*Petroselinum*
2.	Baicalein	*Scutellaria*
3.	Chrysin	*Populus*
4.	Luteolin	*Robinia*
5.	Scutelarein	*Scutellaria*
6.	Hispidulin	*Ambrosia*
7.	Chrysoeriol	*Reseda*
8.	Tricetin	*Eriodictyon*
9.	Tangeretin	*Diosma*
10.	Wogonin	*Lathyrus*
11.	Rhoifolin	*Triticum*
12.	Diosmetin	Daun Peterseli
13.	Acacetin	*Tetracera indica*
14.	Tricin	Jeruk Nipis
Flavonol		
15.	Galangin	*Alpinia*
16.	Fisetin	*Rhus*
17.	Kaemferol	*Delphinium*
18.	Kaemferide	*Alpinia*
19.	Robinetin	*Robina*
20.	Herbasetin	*Gossypium*
21.	Quercetin	*Quercus*
22.	Ramnetin	*Rhamnus*
23.	Isoramnetin	*Cheiranthus*
24.	Myricetin	*Myrica*
25.	Querstagenin	*Tagetes*
26.	Gossypetin	*Gossypium*
27.	Isoquercetin	Apel, teh, tomat, anggur merah, cerry, bawang, brokoli, buah peel, letus, gandum, asam citrus, mangga
28.	Ramnazin	
29.	Rutin	
30.	Morin	

LAMPIRAN 1
(LANJUTAN)

Tabel VII.1
Lanjutan

No.	Flavonoid	Sumber Tanaman
31.	Pachypodol	
	Isoflavon	
32.	Daidzein	*Pueraria*
33.	Formononetin	*Ononis*
34.	Genistein	*Genista*
35.	Biokanin A	*Cicer*
36.	Orobol	*Orobus*
37.	Tectorigenin	*Iris*
38.	Baptigenin	*Baptisia*
	Flavanon	
39.	Pinocembrin	*Pinus*
40.	Liquiritigenin	*Glycyrrhi*
41.	Narigenin	*za Prunus*
42.	Sakuranetin	*Prunus*
43.	Eriodictyol	*Eriodictyon*
44.	Hesperetin	*Prunus*
45.	Homeriodictyol	Jeruk Bali
46.	Parietin	
47.	Epigallocatechin	*Camellia sinensis*
48.	Catechin	
49.	Naringin	Jeruk Bali
	Dehidroflavonol	
50.	Pinobanskin	*Pinus*
51.	Aromadendrin	*Eucalyptus*
52.	Fustin	*Rhus*
53.	Taksifolin	*Pseudotsuga*
	BiFlavonoid	
54.	Agathisflavone	*Agathis*
55.	Cupresuflavone	*Cupressus*
56.	Ginkgetin	*Cupressus*
57.	Siadopitisin	*Ginkgo*

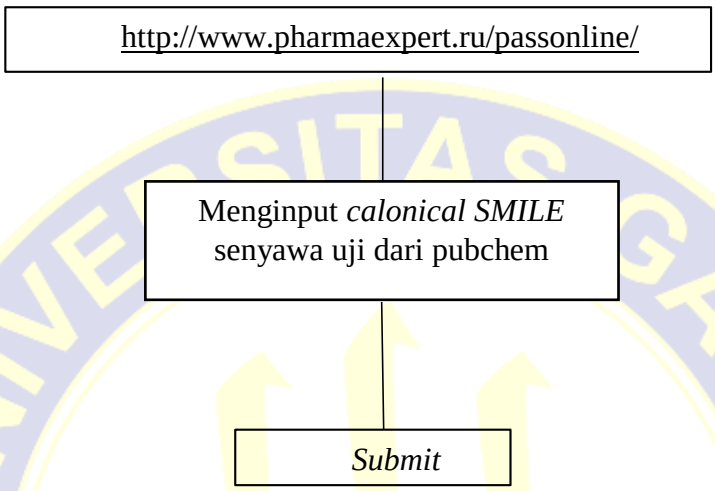
LAMPIRAN 1
(LANJUTAN)

Tabel VII.1
Lanjutan

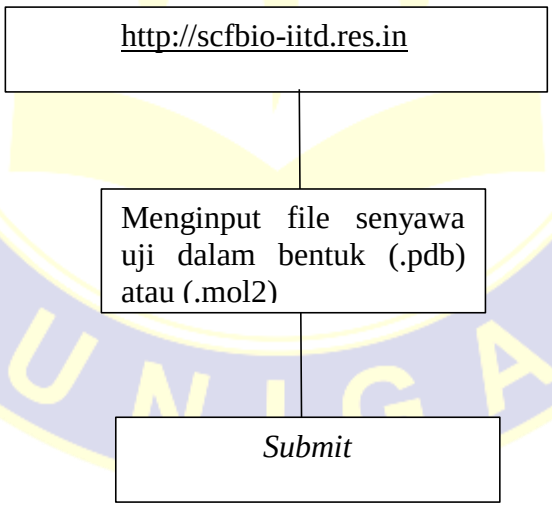
No.	Flavonoid	Sumber Tanaman
58.	Robustaflavone	*Ginkgo*
59.	Hinokiflavone	*Agathis*
60.	Ochnaflavone	*Cupressus*
61.	Amentoflavone	*Ochna*
Khalkon		
62.	Isoliquiritigenin	*Acacia*
63.	Khalkonarigenin	*Salix(sebagai 2'-O-glukosida)*
64.	Butein	*Acicia*
65.	Okanin	*Acicia*
66.	Phloretin	Tomat, Strawberry
67.	Phlorizin	
Auron		
68.	Sulfuretin	*Bidens*
69.	Aureusidin	*Antirrhinum*
70.	Maritimetin	*Bidens*
71.	Leptosidin	*Coreopsis*
Antosianidin		
72.	Apigenidin	*Rechsteineria*
73.	Luteolinnidin	*Rechsteineria*
74.	Pelargonidin	*Pelargonium*
75.	Cyanidin	*Centaurea*
76.	Peonidin	*Paeonia*
77.	Delpinidin	*Delphinium*
78.	Petunidin	*Petunia*
79.	Malvinidin	*Malva*
80.	Rosinidin	Kacang

LAMPIRAN 2

ALUR PENELITIAN PREDIKSI AKTIVITAS ANTIVIRUS DAN PREDIKSI DRUGLIKENESS



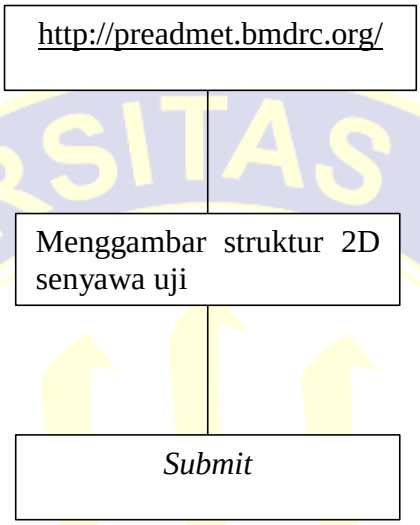
Gambar VII. 1 Alur prediksi aktivitas antivirus menggunakan PASS *Online*



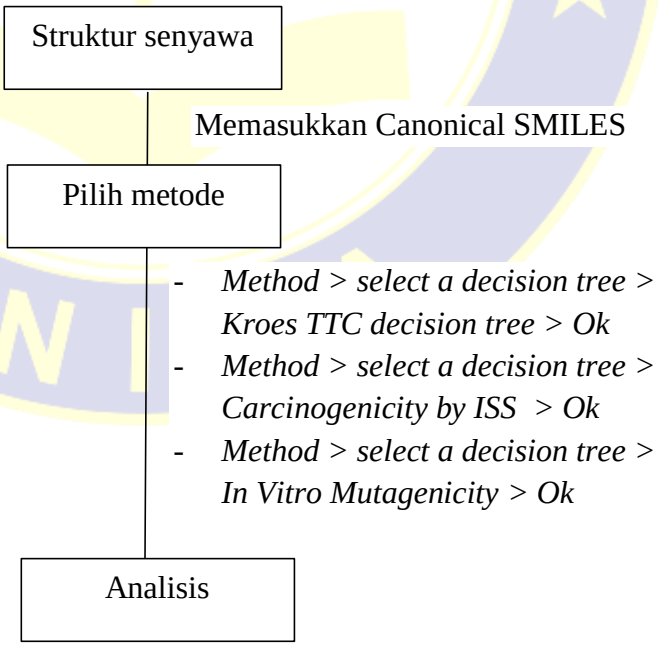
Gambar VII. 2 Alur prediksi *druglikeness* menggunakan situs *online Lipinski Rule Of Five*

LAMPIRAN 3

ALUR PENELITIAN PREDIKSI FARMAKONINETIKA DAN PREDIKSI TOKSISITAS



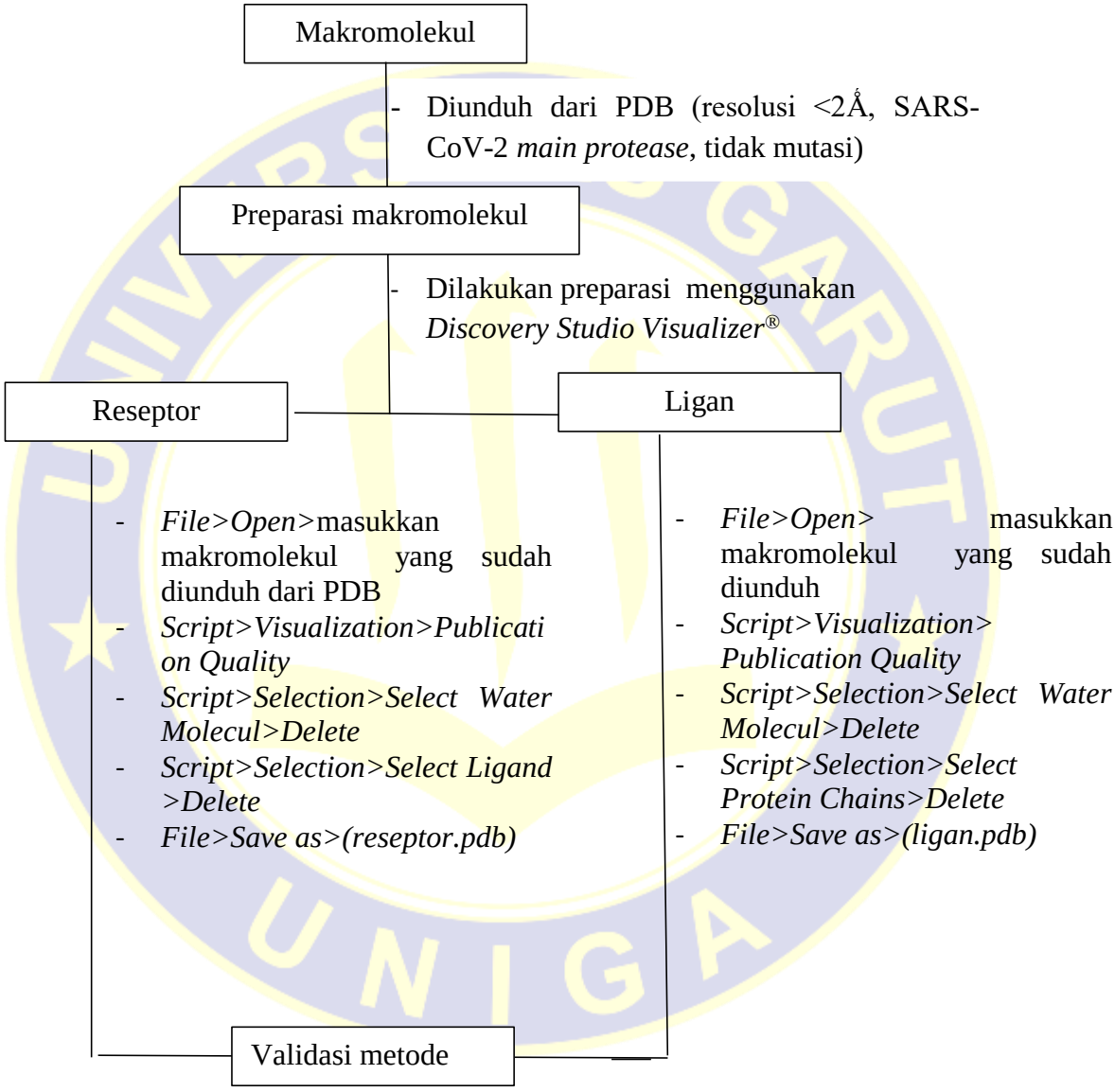
Gambar VII. 3 Alur rediksi farmakokinetik menggunakan situs *online* Pre- ADMET



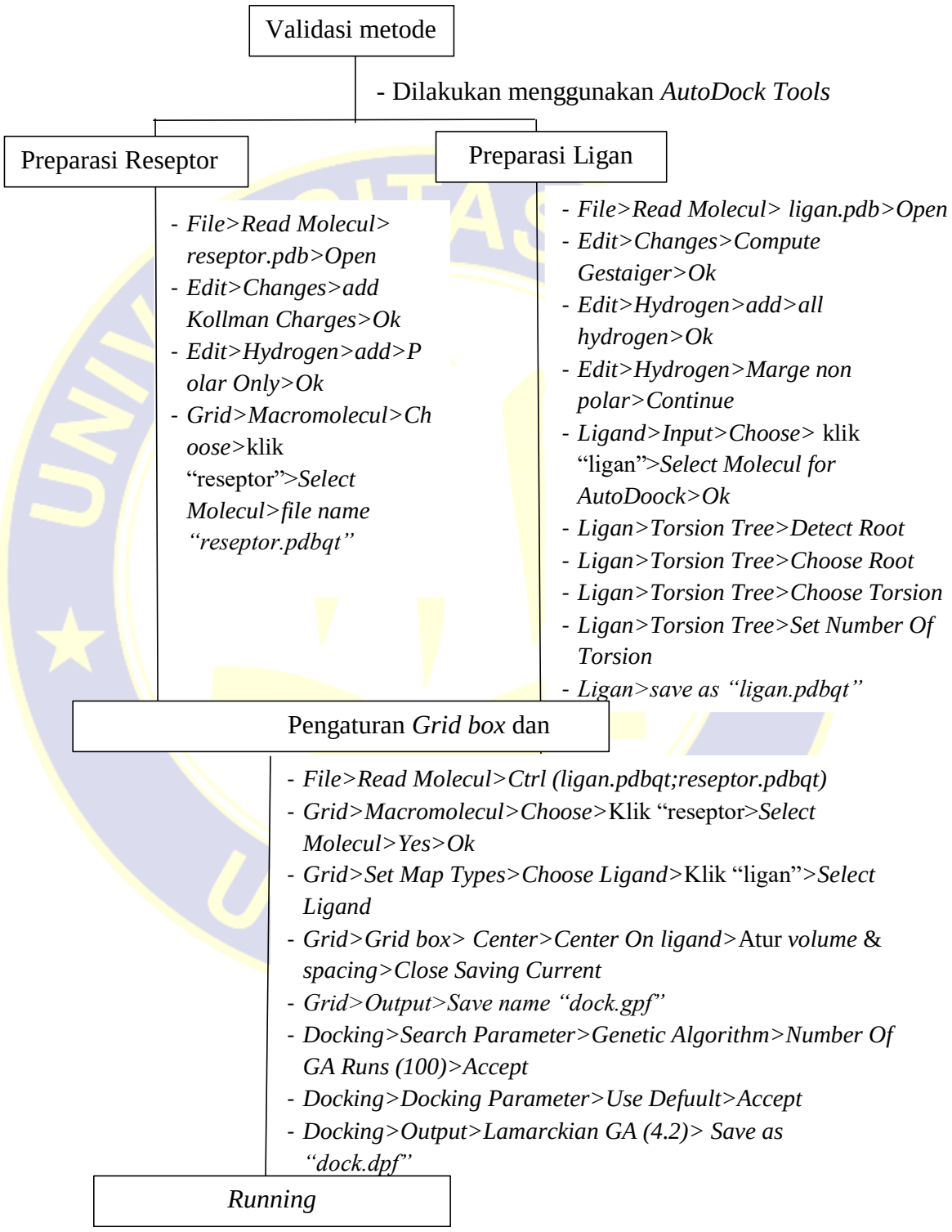
Gambar VII. 4 Alur prediksi toksisitas menggunakan *Toxtree 3.1.0*®

LAMPIRAN 4

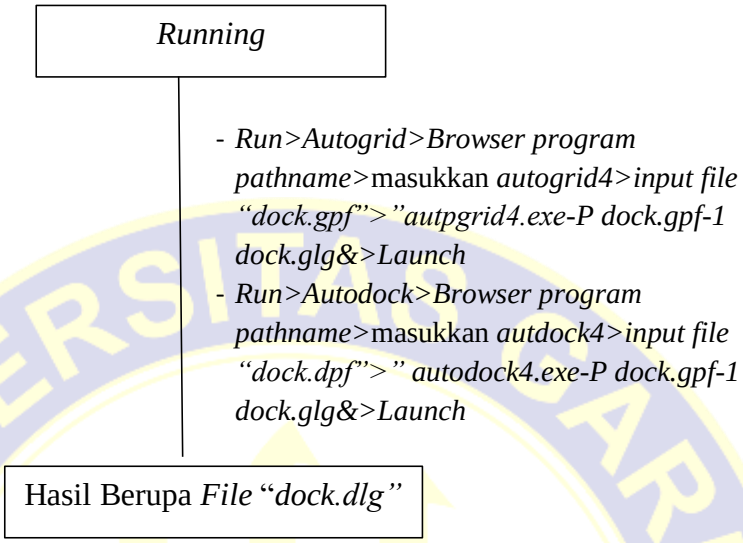
ALUR PENELITIAN VALIDASI METODE MOLECULAR DOCKING



LAMPIRAN 3
(LANJUTAN)



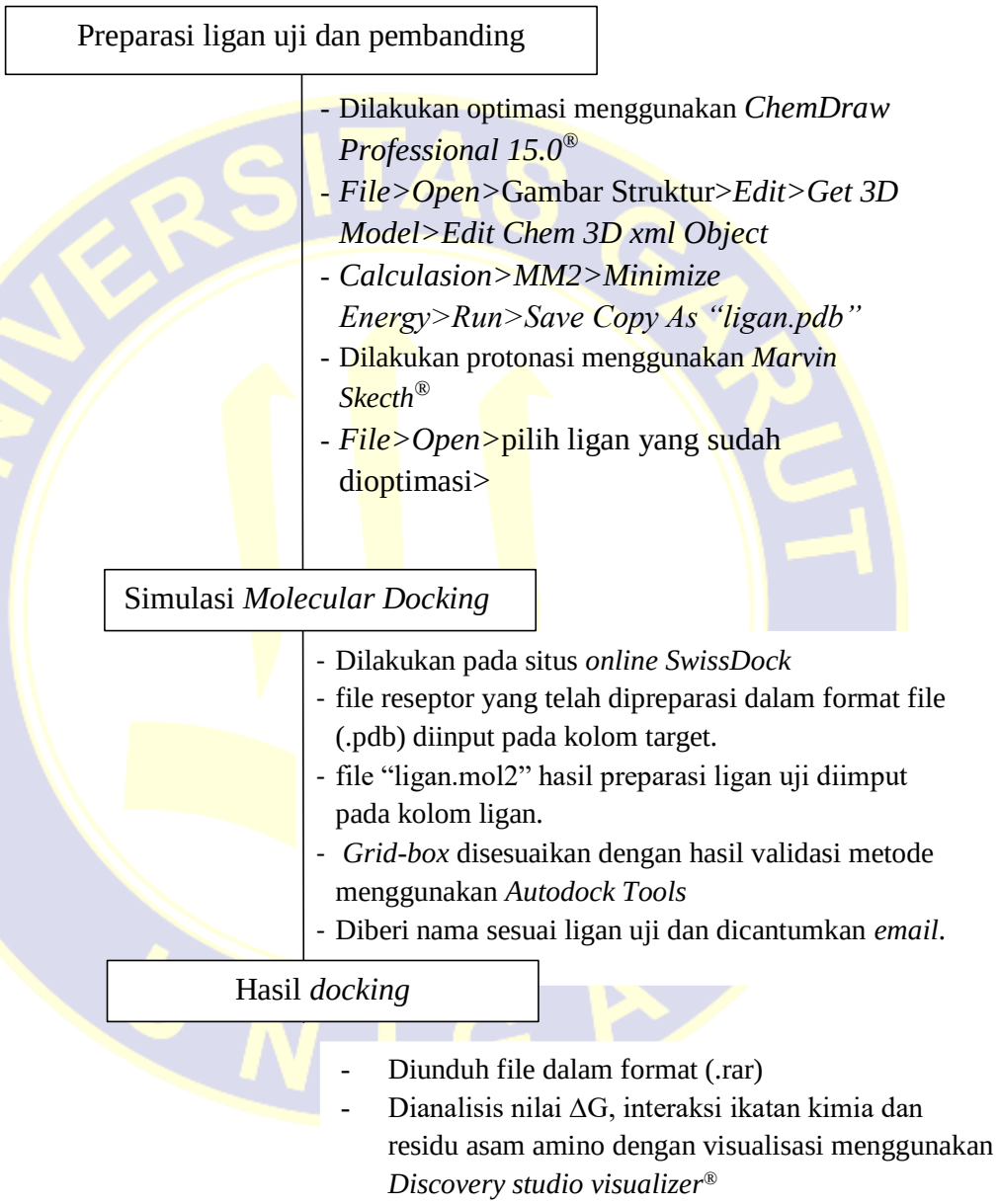
LAMPIRAN 3
(LANJUTAN)



Gambar VII. 5 Alur penelitian validasi metode *molecular docking*

LAMPIRAN 5

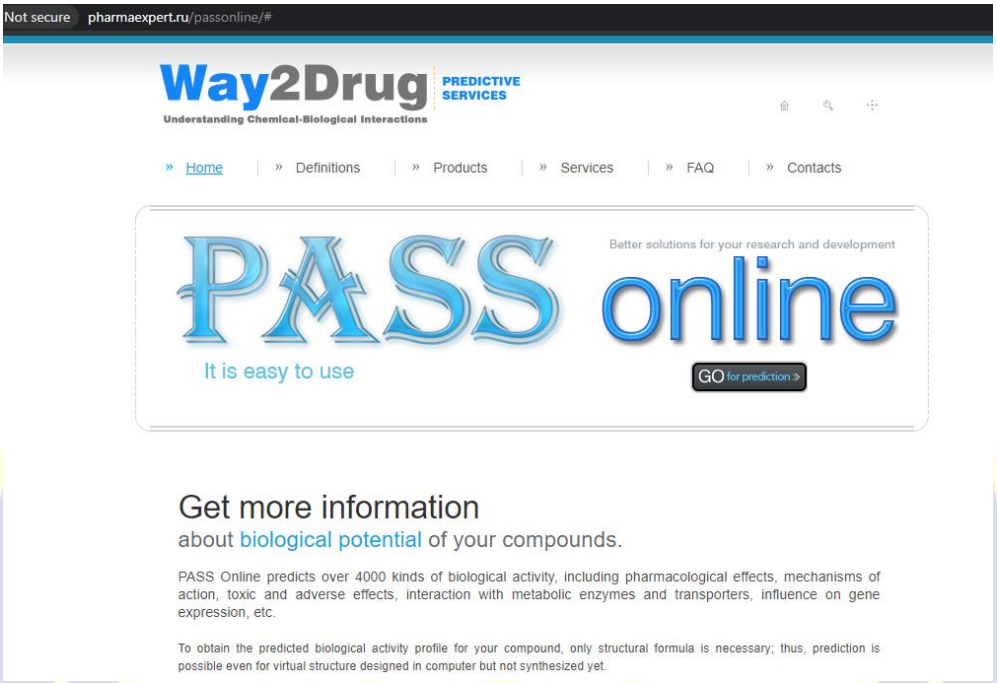
ALUR PENELITIAN SIMULASI MOLECULAR DOCKING



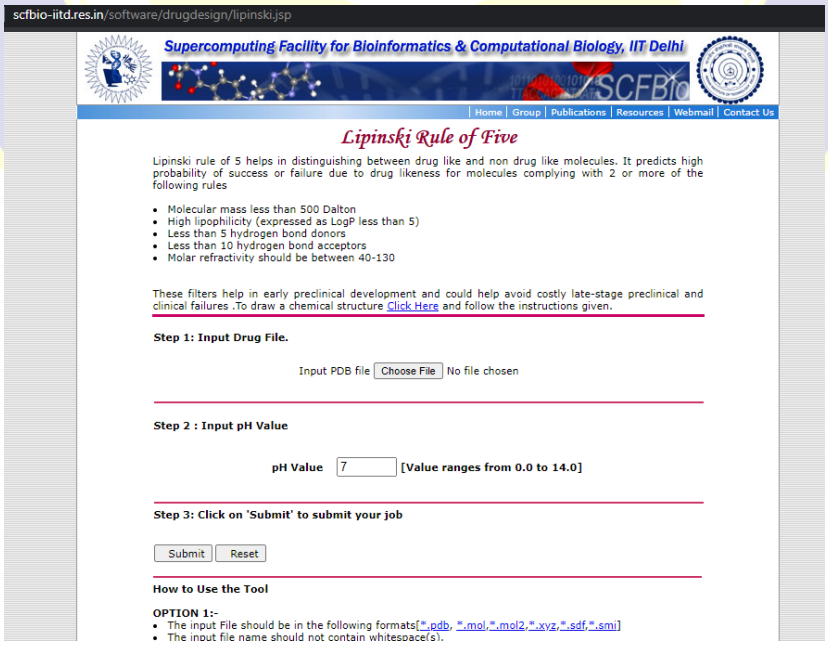
Gambar VII. 6 Alur penelitian simulasi *molecular docking*

LAMPIRAN 6

SITUS DAN APLIKASI

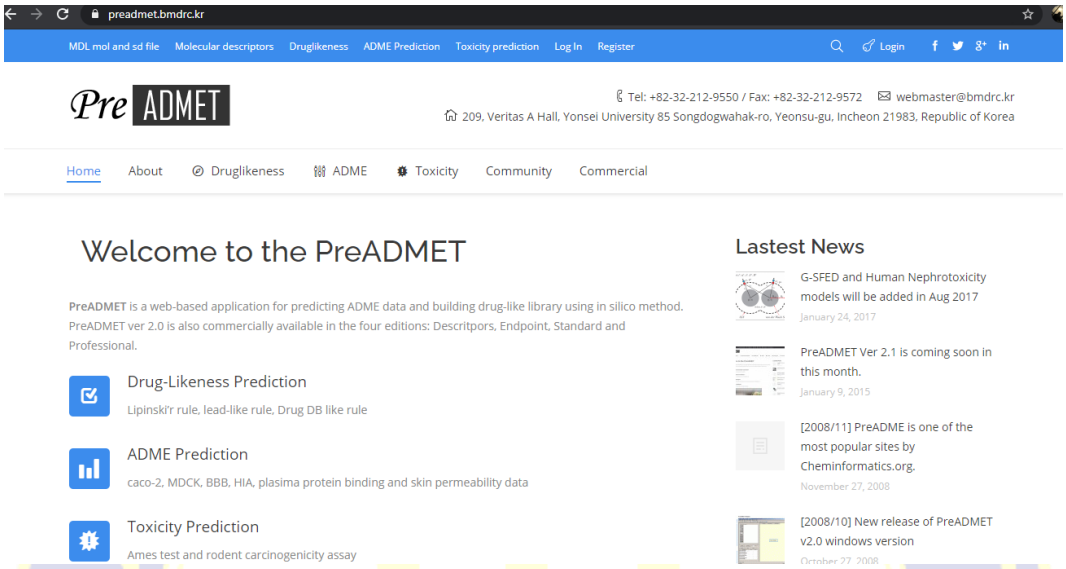


Gambar VII. 7 Tampilan situs *PASS online*

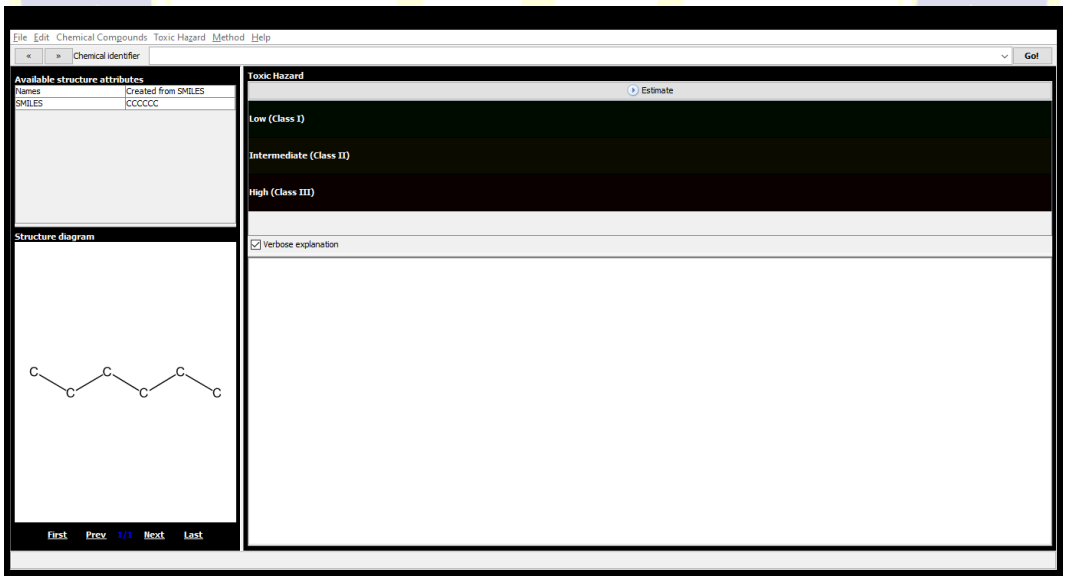


Gambar VII. 8 Tampilan situs *Lipinski Rule of Five*

LAMPIRAN 6
(LANJUTAN)

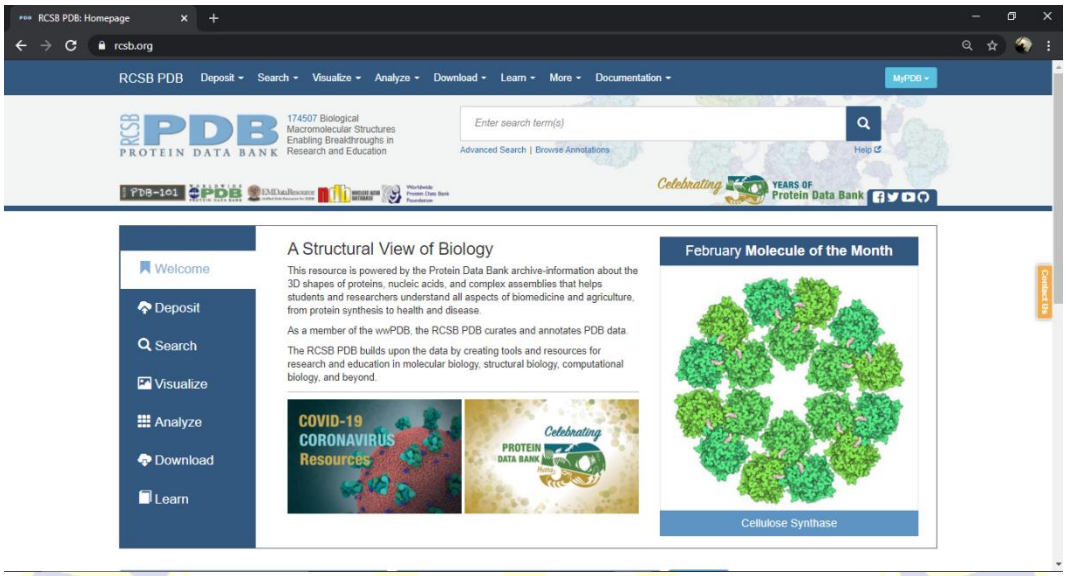


Gambar VII. 9 Tampilan situs *PreADMET*

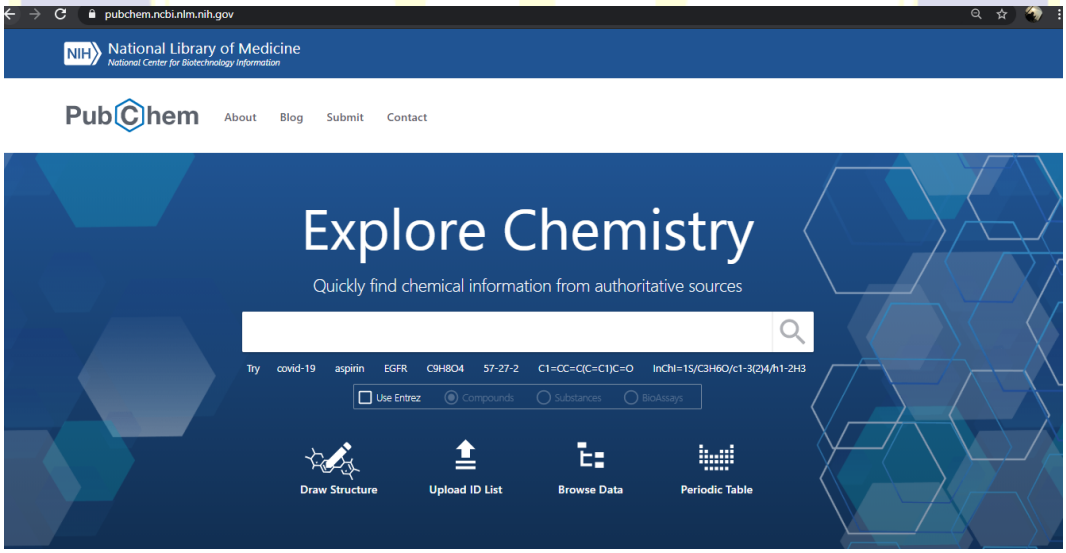


Gambar VII. 10 Tampilan aplikasi *Toxtree*®

LAMPIRAN 6
(LANJUTAN)

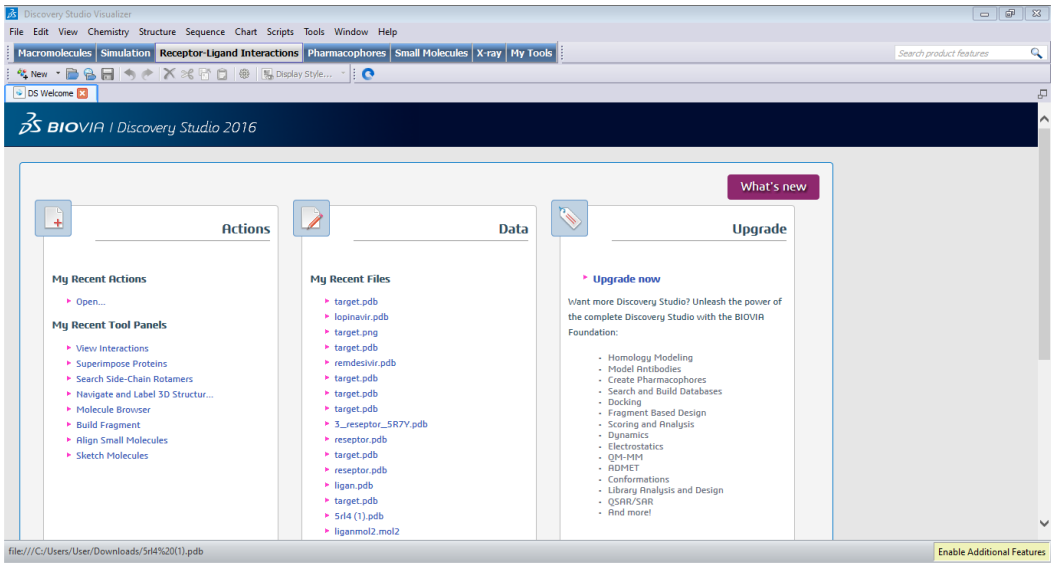


Gambar VII. 11 Tampilan situs Protein Data Bank (PDB)

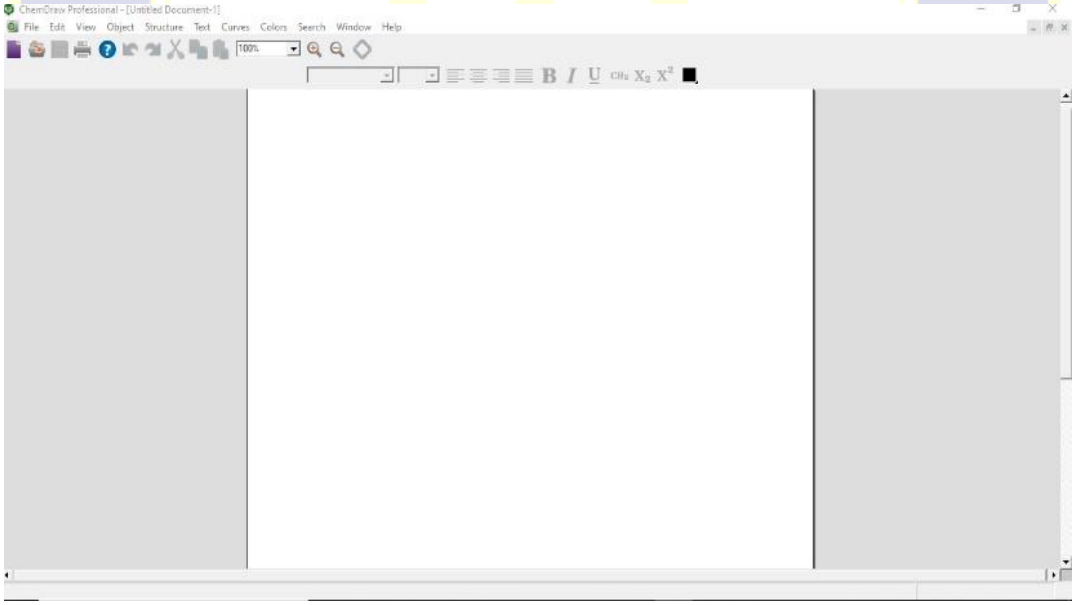


Gambar VII. 12 *Tampilan situs PubChem*

LAMPIRAN 6
(LANJUTAN)

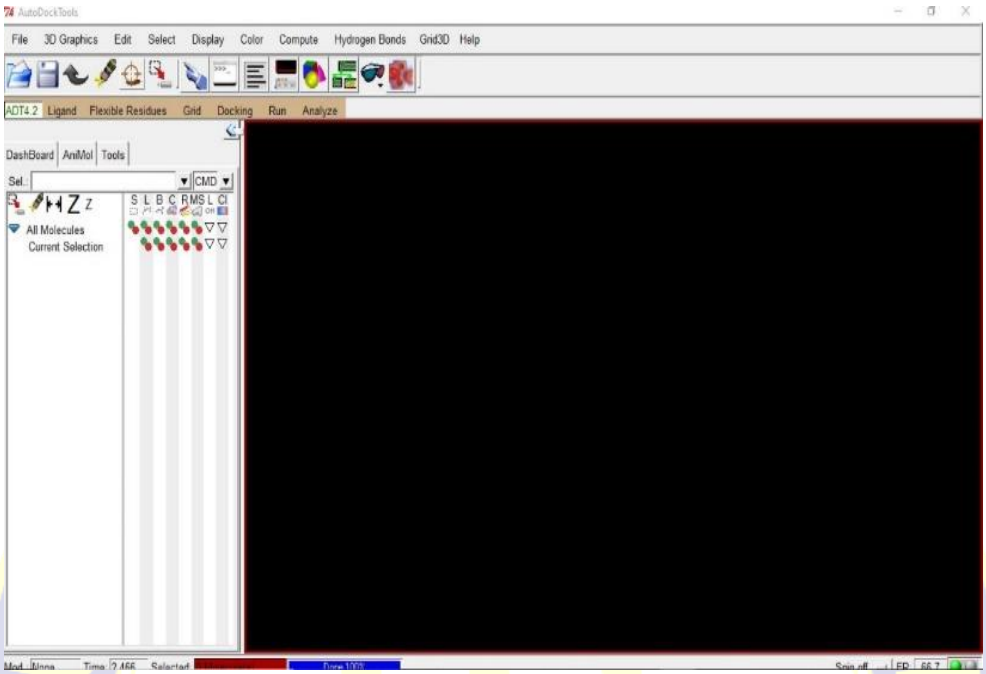


Gambar VII. 13 Tampilan aplikasi *Discovery Studio Visualizer*®

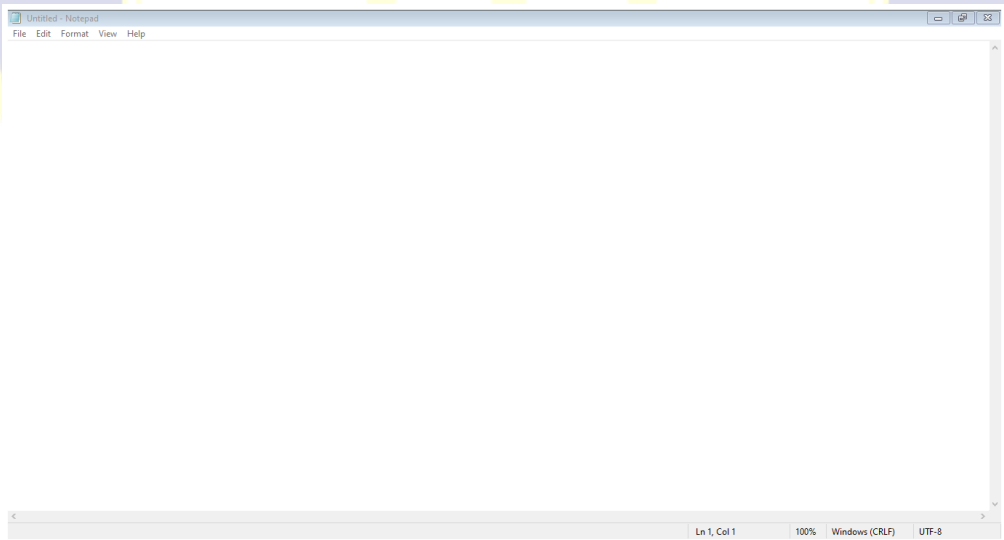


Gambar VII. 14 Tampilan aplikasi *ChemDraw Professional 15.0*®

LAMPIRAN 6
(LANJUTAN)

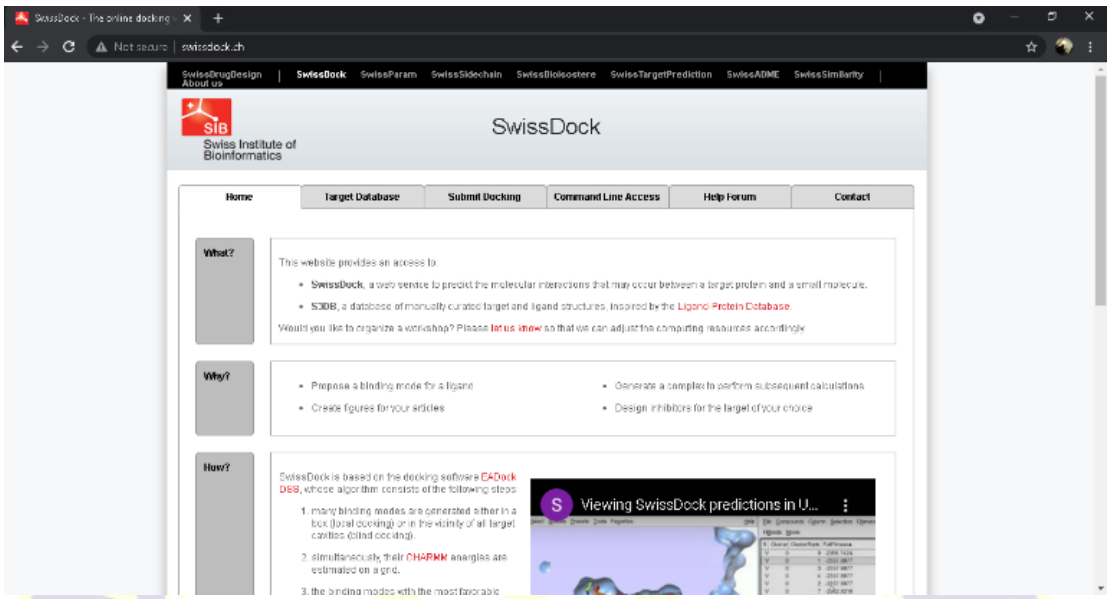


Gambar VII. 15 Tampilan aplikasi *AutoDock Tools*®

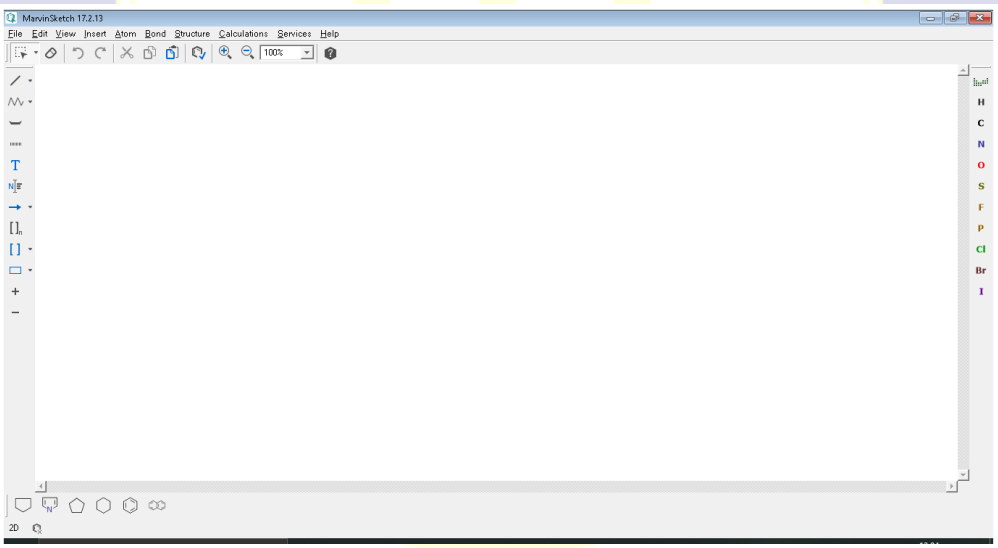


Gambar VII. 16 Tampilan aplikasi *Notepad*®

LAMPIRAN 6
(LANJUTAN)



Gambar VII. 17 Tampilan situs *online SwissDock*



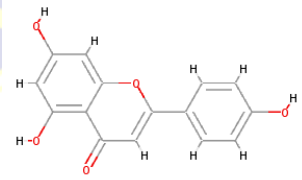
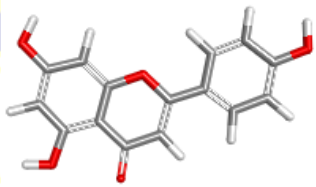
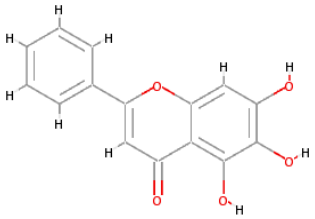
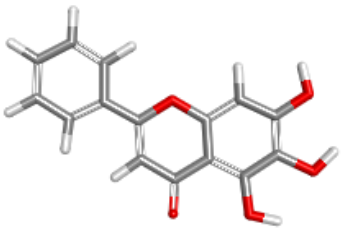
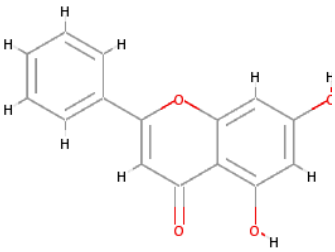
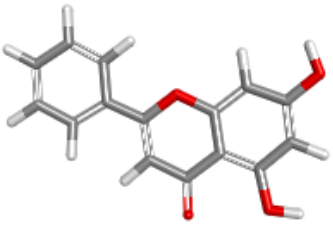
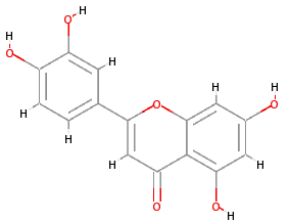
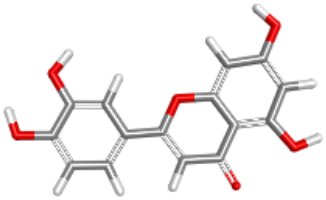
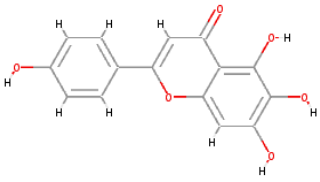
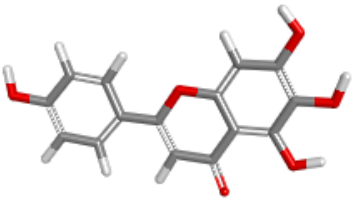
Gambar VII. 18 Tampilan aplikasi *Marvin Sketch*

LAMPIRAN 7

STRUKTUR SENYAWA FLAVONOID

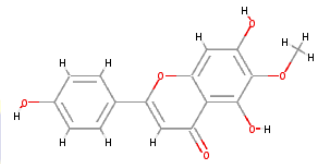
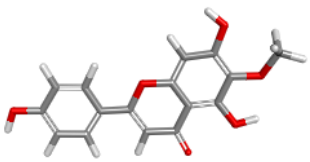
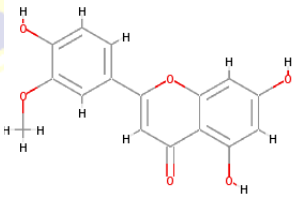
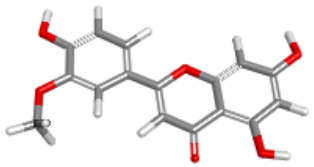
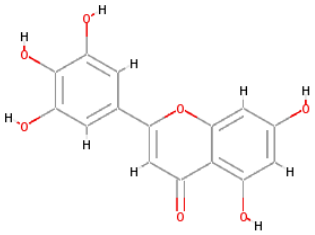
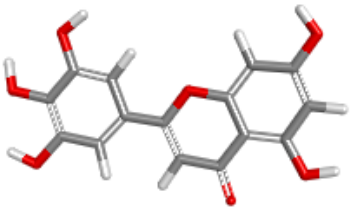
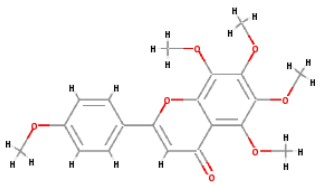
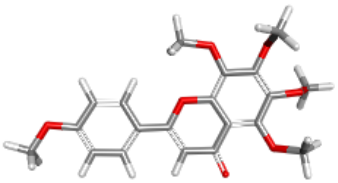
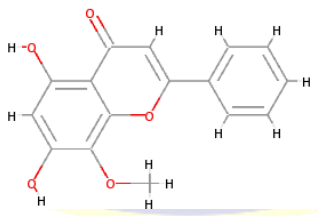
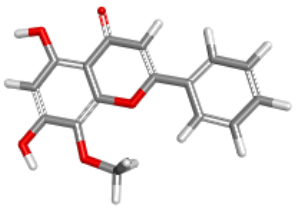
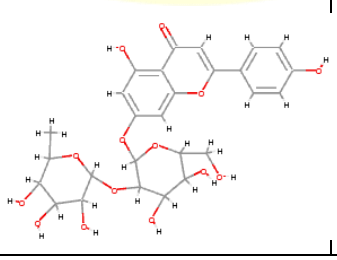
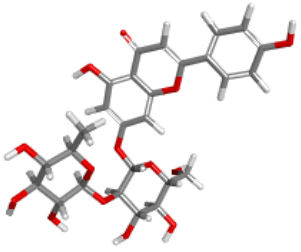
Tabel VII. 2

Struktur 2D dan 3D senyawa Flavonoid

No.	Flavonoid	Struktur 2D	Struktur 3D
		Flavon	
1.	Apigenin		
2.	Baicalein		
3.	Chrysin		
4.	Luteolin		
5.	Scutelarein		

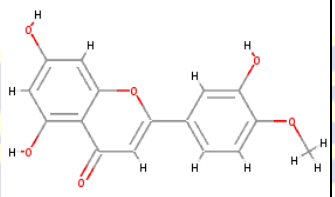
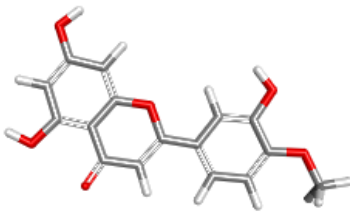
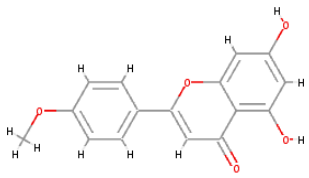
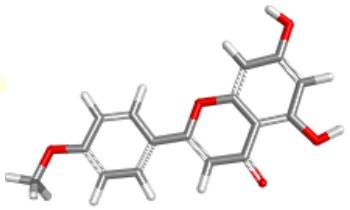
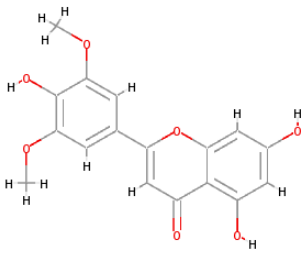
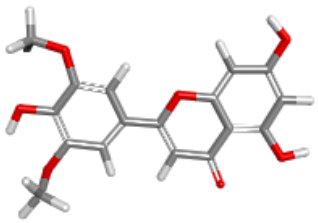
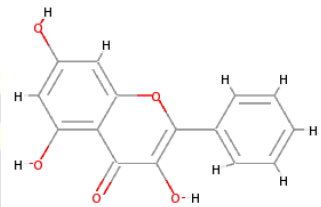
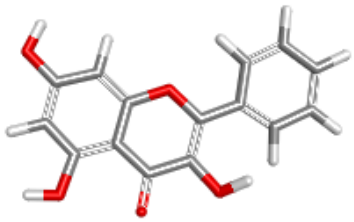
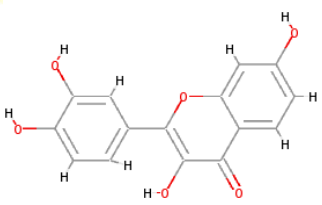
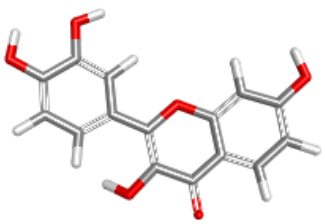
LAMPIRAN 7
(LANJUTAN)

Tabel VII.2
Lanjutan

No.	Flavonoid	Struktur 2D	Struktur 3D
6.	Hispidulin		
7.	Chrysoeriol		
8.	Tricetin		
9.	Tangeretin		
10.	Wogonin		
11.	Rhoifolin		

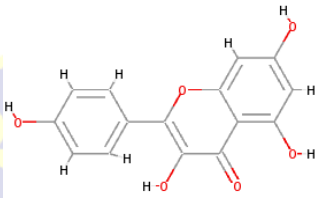
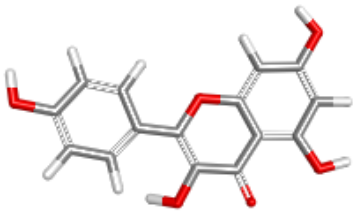
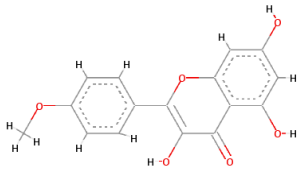
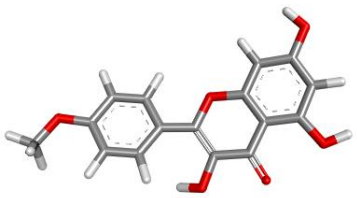
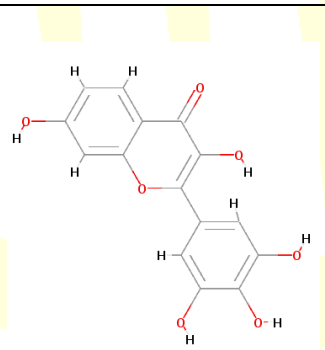
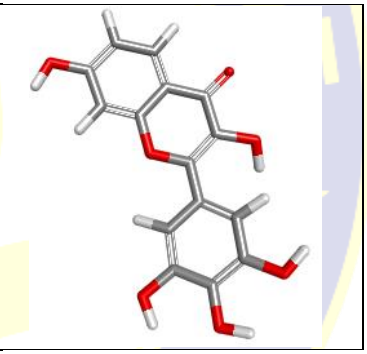
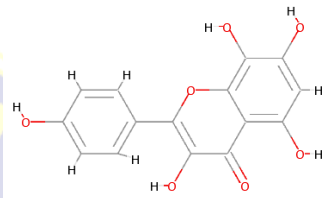
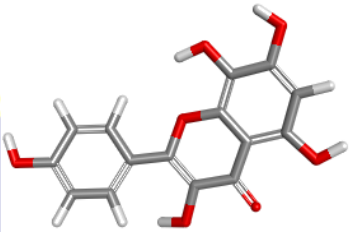
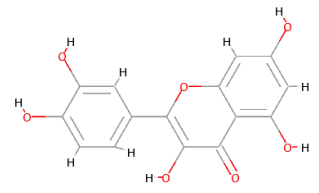
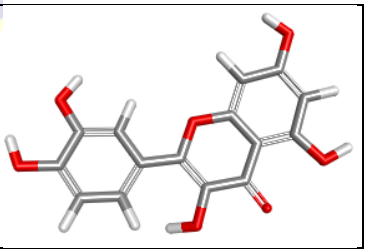
LAMPIRAN 7
(LANJUTAN)

Tabel VII.2
Lanjutan

No.	Flavonoid	Struktur 2D	Struktur 3D
12.	Diosmetin		
13.	Acacetin		
14.	Tricin		
Flavonol			
15.	Galangin		
16.	Fisetin		

LAMPIRAN 7
(LANJUTAN)

Tabel VII.2
Lanjutan

No.	Flavonoid	Struktur 2D	Struktur 3D
17.	Kaemferol		
18.	Kaemferide		
19.	Robinetin		
20.	Herbasetin		
21.	Quercetin		

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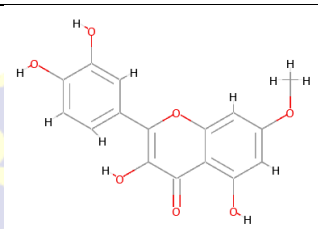
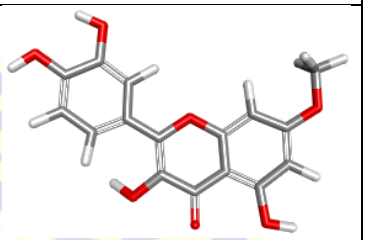
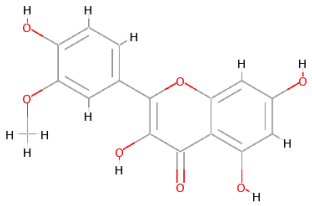
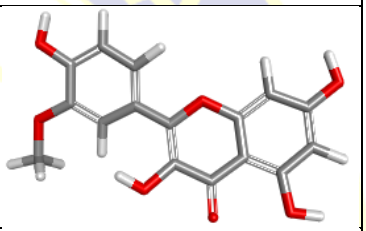
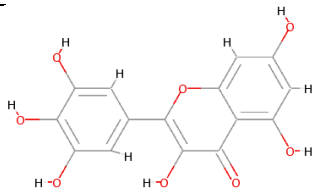
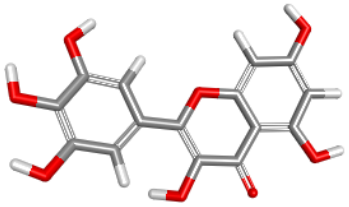
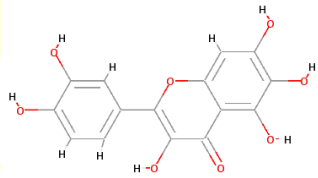
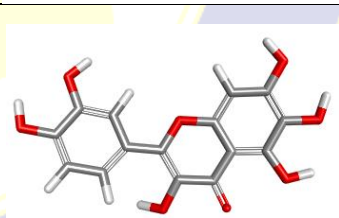
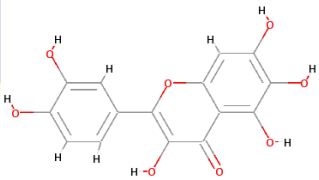
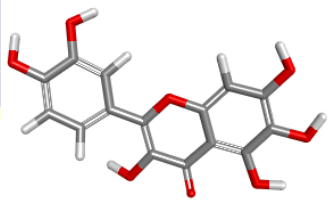
(LANJUTAN)

Tabel VII.2
Lanjutan

No.	Flavonoid	Struktur 2D	Struktur 3D
22.	Ramnetin		
23.	Isoramnetin		
24	Myricetin		
25.	Querstagenin		
26.	Gossypetin		

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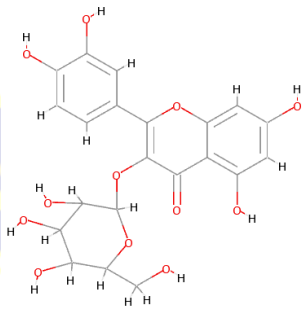
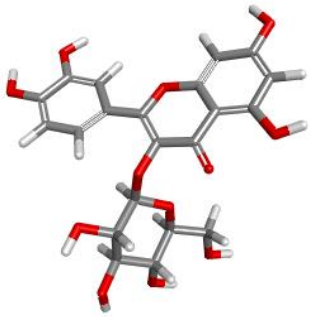
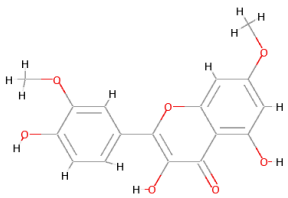
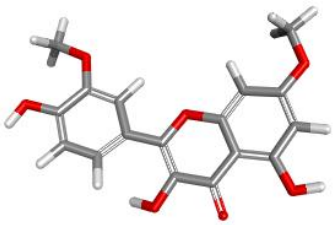
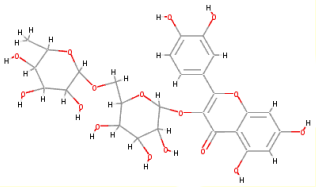
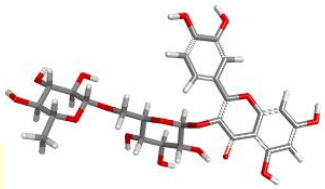
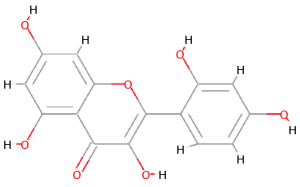
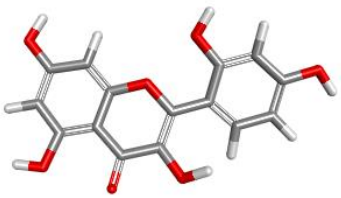
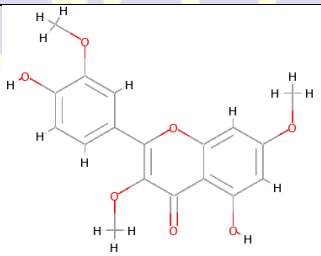
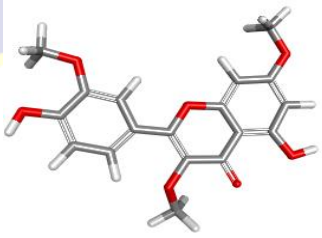
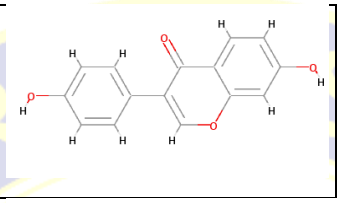
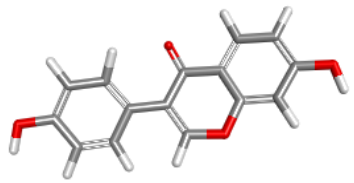
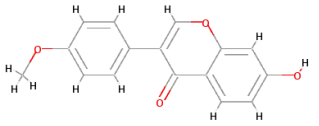
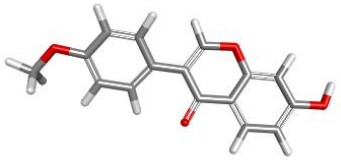
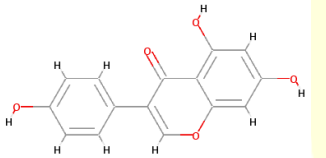
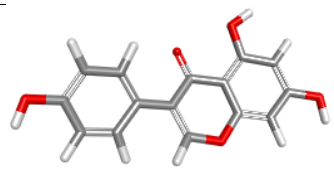
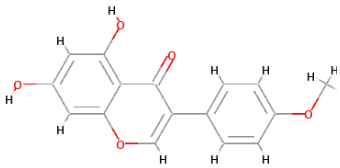
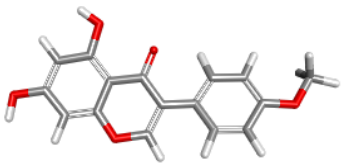
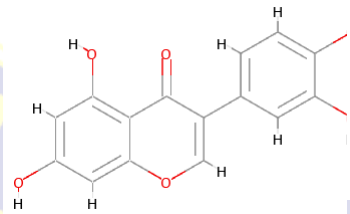
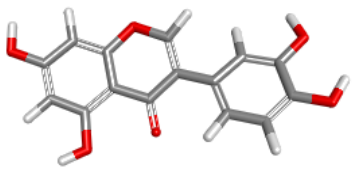
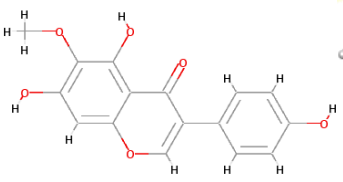
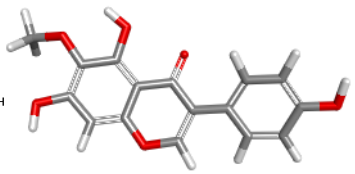
(LANJUTAN)

Tabel VII.2
Lanjutan

No.	Flavonoid	Struktur 2D	Struktur 3D
27.	Isoquercetin		
28.	Ramnazin		
29.	Rutin		
30.	Morin		
31.	Pachypodol		

LAMPIRAN 7
(LANJUTAN)

Tabel VII.2
Lanjutan

No.	Flavonoid	Struktur 2D	Struktur 3D
		Isoflavon	
32.	Daidzein		
33.	Formononetin		
34.	Genistein		
35.	Biokanin A		
36.	Orobol		
37.	Tectorigenin		

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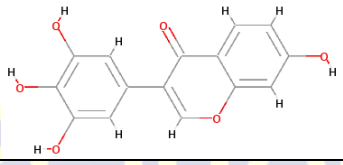
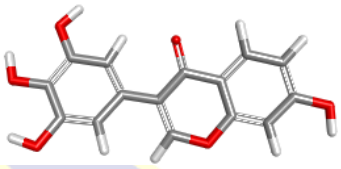
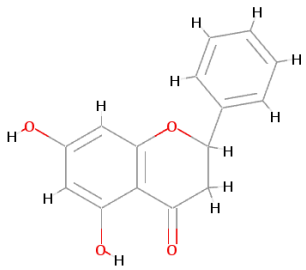
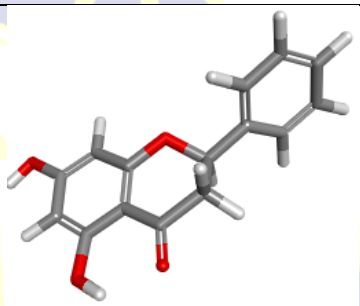
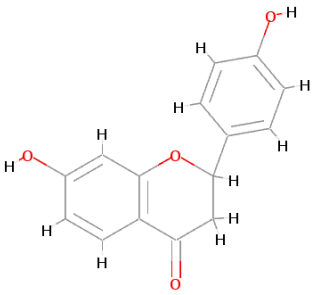
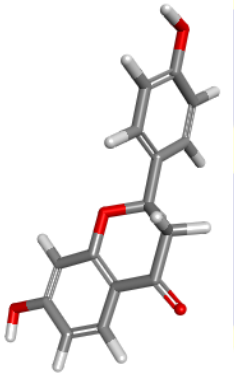
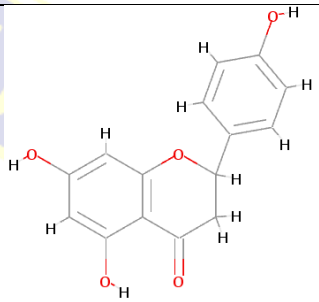
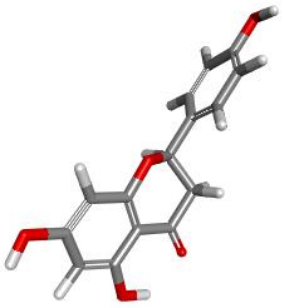
(LANJUTAN)

Tabel VII.2
Lanjutan

No	Flavonoid	Struktur 2D	Struktur 3D
38.	Baptigenin		
Flavanon			
39.	Pinocembrin		
40.	Liquiritigenin		
41.	Narigenin		

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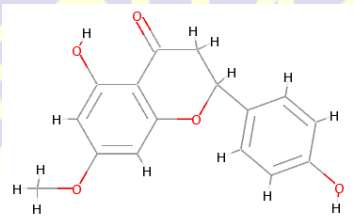
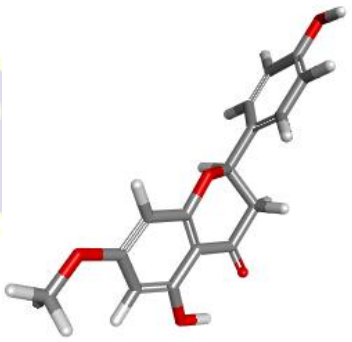
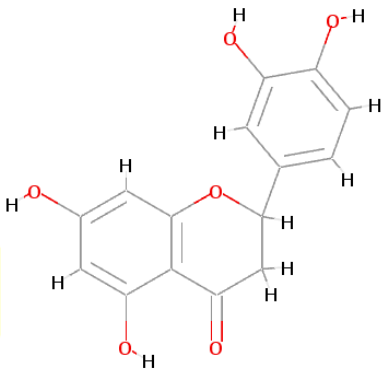
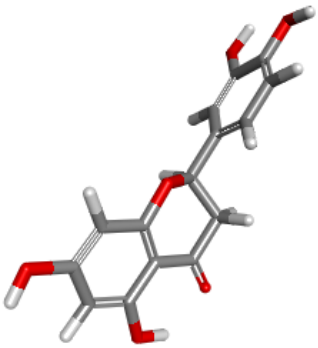
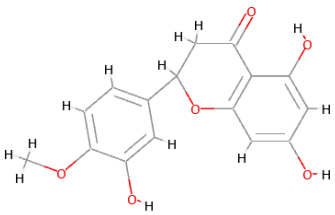
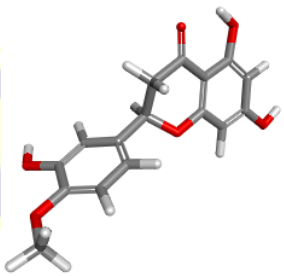
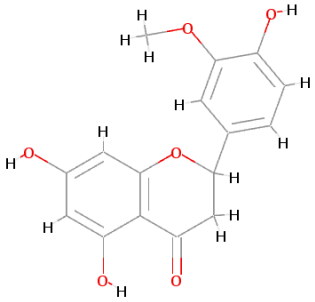
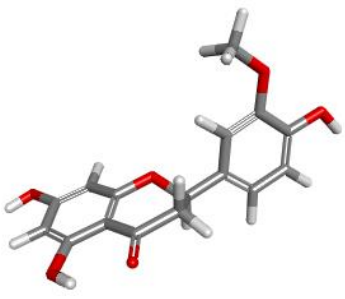
(LANJUTAN)

Tabel VII.2
Lanjutan

No.	Flavonoid	Struktur 2D	Struktur 3D
42.	Sakuranetin		
43.	Eriodictyol		
44.	Hesperetin		
45.	Homeriodictyol		

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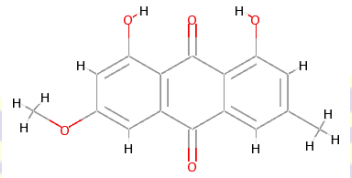
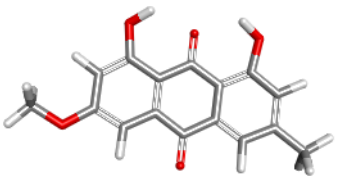
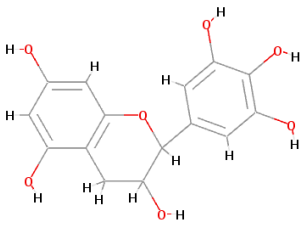
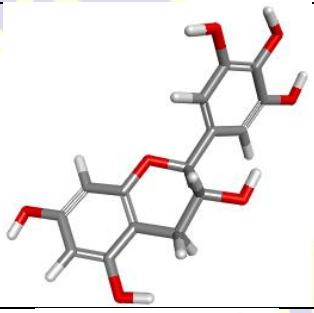
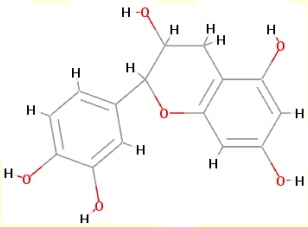
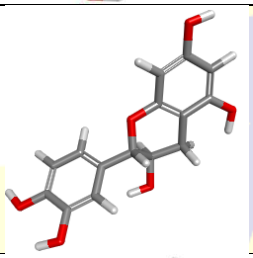
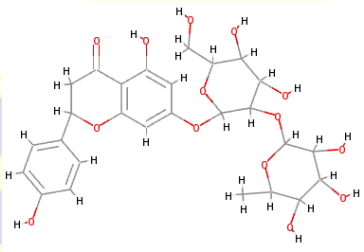
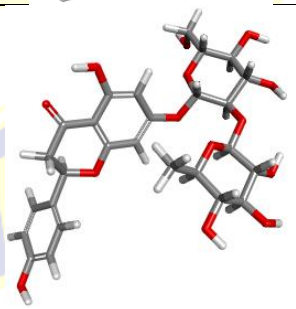
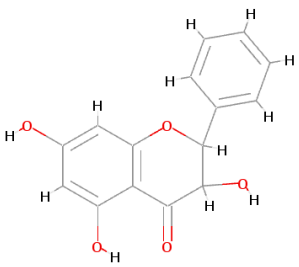
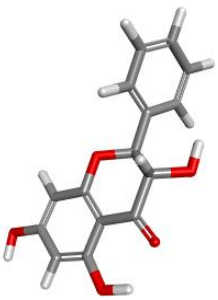
(LANJUTAN)

Tabel VII.2
Lanjutan

No.	Flavonoid	Struktur 2D	Struktur 3D
46.	Parietin		
47.	Epigallocatechin		
48.	Catechin		
49.	Naringin		
Dehidroflavonol			
50.	Pinobanskin		

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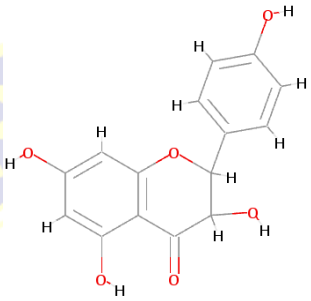
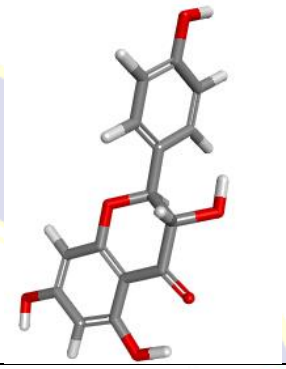
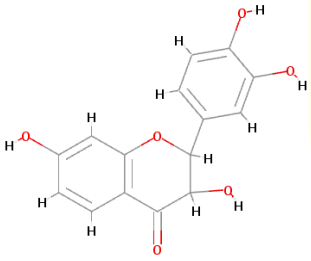
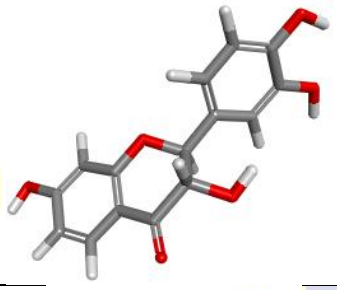
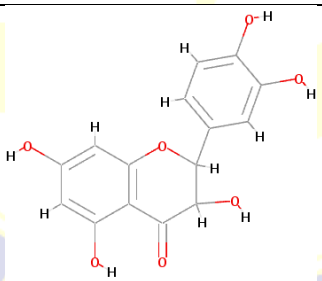
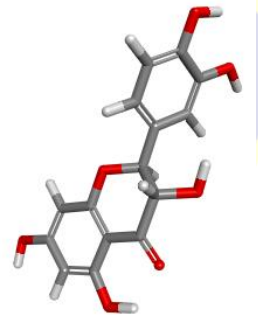
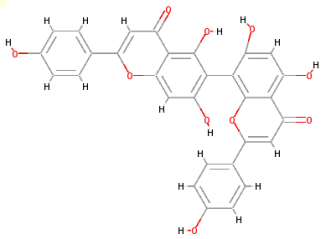
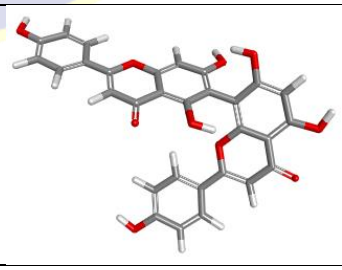
(LANJUTAN)

Tabel VII.2
Lanjutan

No.	Flavonoid	Struktur 2D	Struktur 3D
51.	Aromadendrin		
52.	Fustin		
53.	Taksifolin		
BiFlavonoid			
54.	Agathis-flavone		

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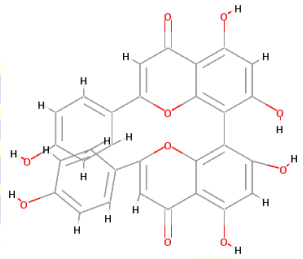
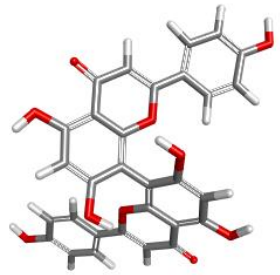
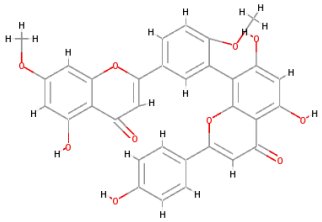
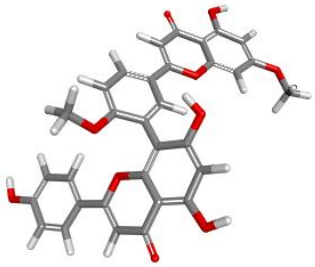
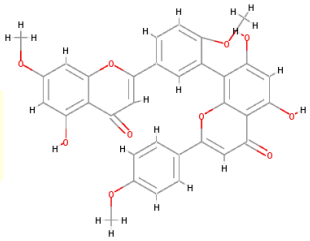
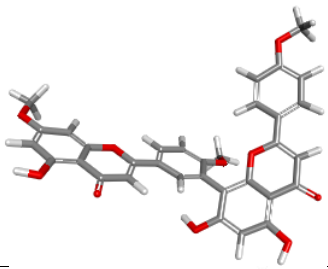
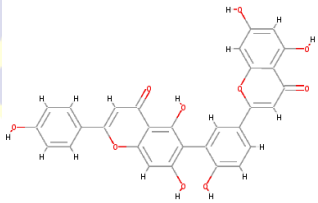
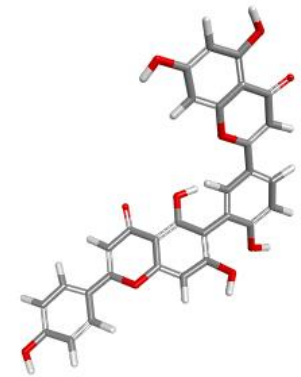
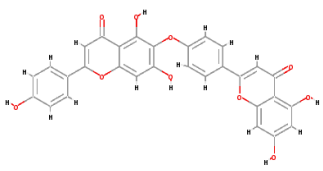
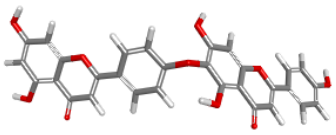
(LANJUTAN)

Tabel VII.2
Lanjutan

No.	Flavonoid	Struktur 2D	Struktur 3D
55.	Cupresu-flavone		
56.	Ginkgetin		
57.	Sciadopitysin		
58.	Robusta-flavone		
59.	Hinoki-flavone		

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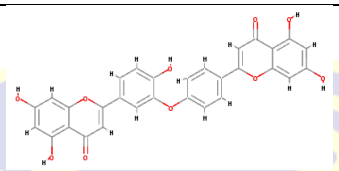
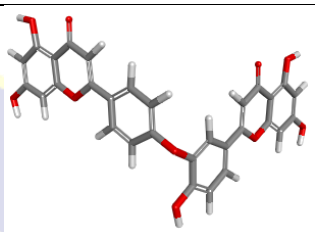
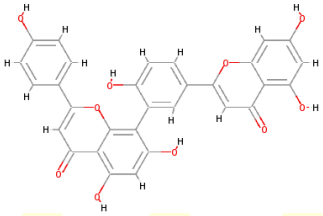
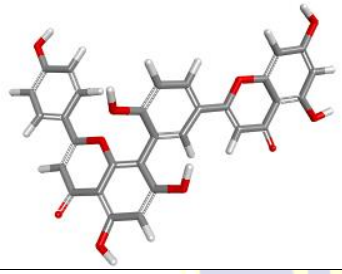
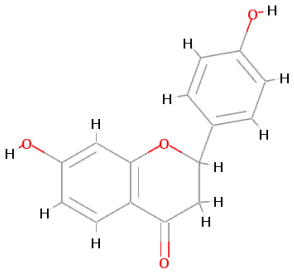
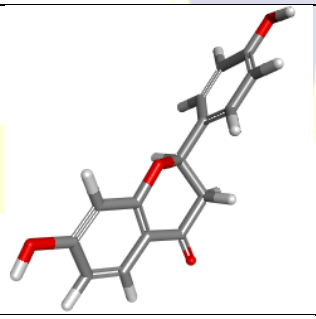
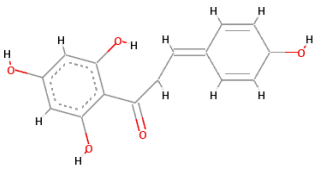
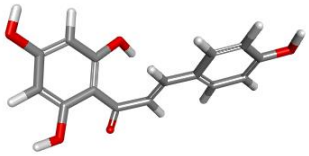
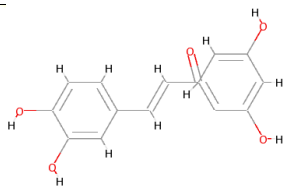
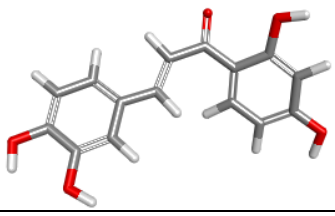
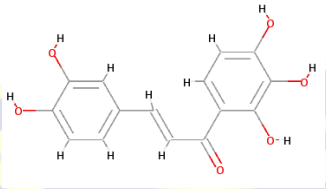
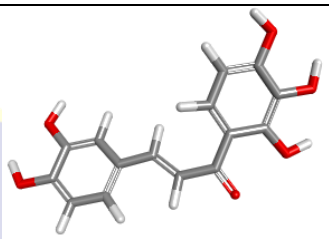
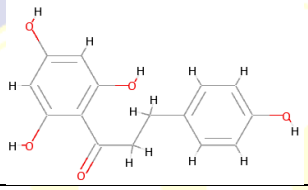
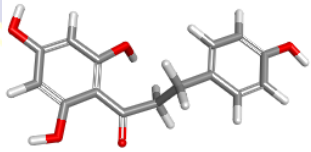
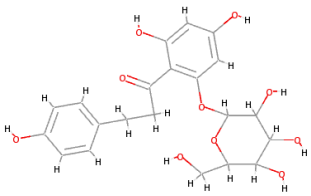
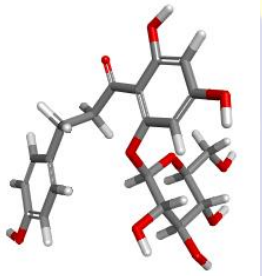
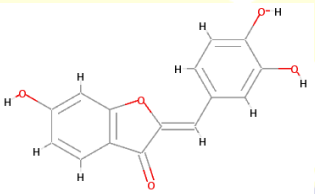
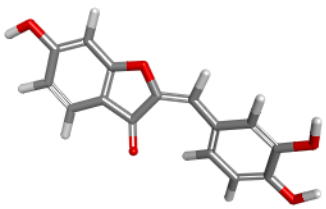
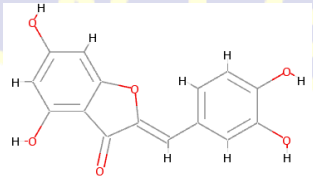
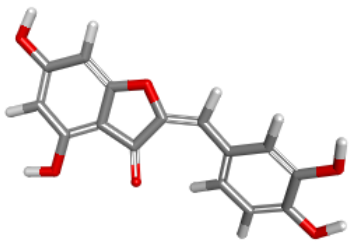
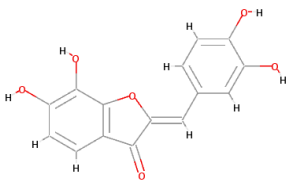
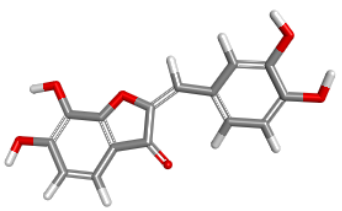
(LANJUTAN)

Tabel VII.2
Lanjutan

No.	Flavonoid	Struktur 2D	Struktur 3D
60.	Ochnaflavone		
61.	Amentoflavone		
Khalkon			
62.	Isoliquiritigenin		
63.	Khalkonarigenin		
64.	Butein		

LAMPIRAN 7
(LANJUTAN)

Tabel VII.2
Lanjutan

No.	Flavonoid	Struktur 2D	Struktur 3D
65.	Okanin		
66.	Phloretin		
67.	Phlorizin		
		Auron	
68.	Sulfuretin		
69.	Aureusidin		
70.	Maritimetin		

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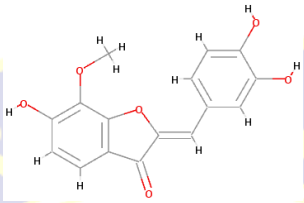
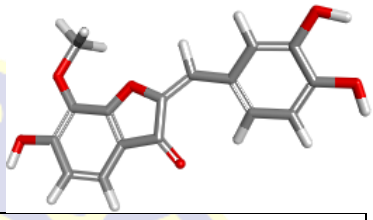
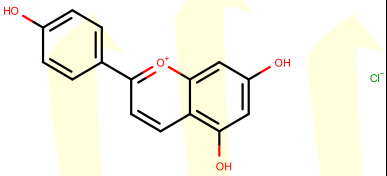
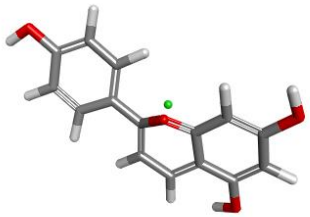
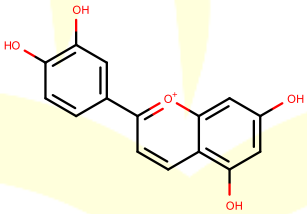
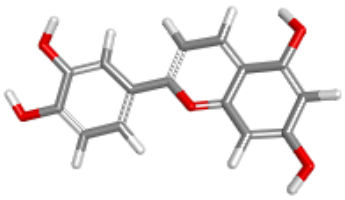
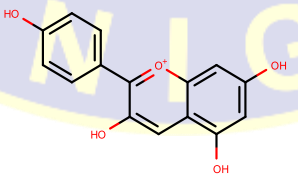
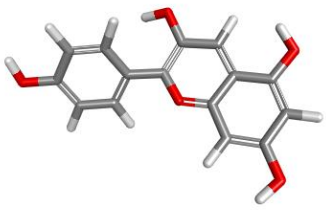
(LANJUTAN)

Tabel VII.2
Lanjutan

No.	Flavonoid	Struktur 2D	Struktur 3D
71.	Leptosidin		
	Antosianidin		
72.	Apigenidin		
73.	Luteolinnidin		
74.	Pelargonidin		

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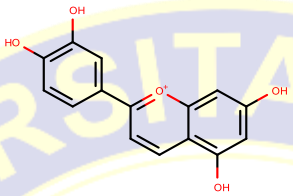
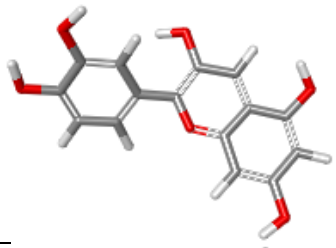
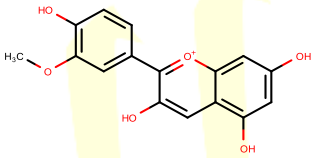
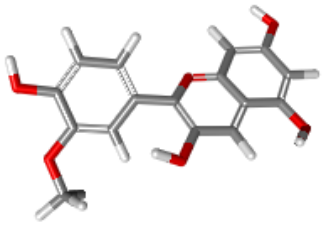
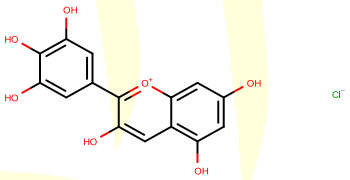
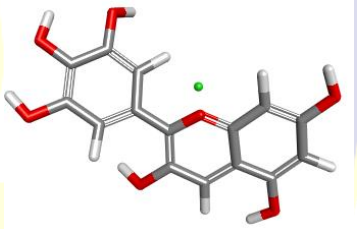
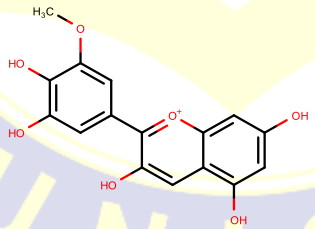
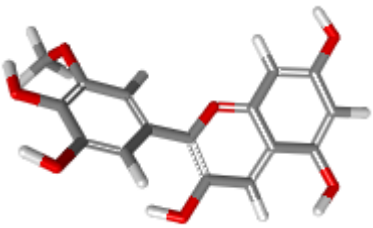
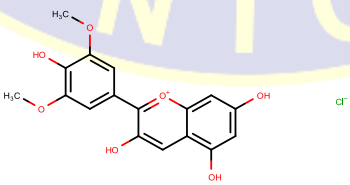
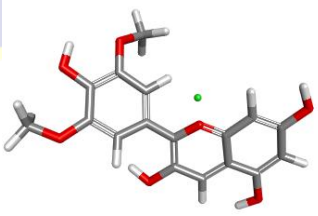
(LANJUTAN)

Tabel VII.2
Lanjutan

No.	Flavonoid	Struktur 2D	Struktur 3D
75.	Cyanidin		
76.	Peonidin		
77.	Delpinidin		
78.	Petunidin		
79.	Malvinidin		

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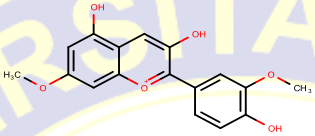
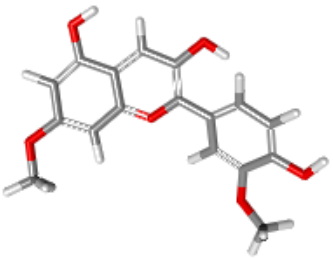
Tabel VII.2
Lanjutan

No.	Flavonoid	Struktur 2D	Struktur 3D
80.	Rosinidin		

LAMPIRAN 8

HASIL PENELITIAN PREDIKSI AKTIVITAS ANTIVIRUS

Tabel VII. 3

Hasil prediksi aktivitas antivirus menggunakan *PASS online*

No.	Falvonoid	Pa	Pi	Aktivitas Antivirus
Flavon				
1.	Apigenin	0,469	0,007	Hepatitis B
		0,469	0,014	Herpes
		0,459	0,03	Influenza
		0,301	0,088	Adenovirus
		0,339	0,171	Picornavirus
		0,325	0,204	Rhinovirus
		0,229	0,112	CMV
		0,135	0,085	HIV
		0,195	0,167	Poxvirus
2.	Baicalein	0,49	0,005	Hepatitis B
		0,468	0,014	Herpes
		0,439	0,035	Influenza
		0,246	0,016	HIV
		0,308	0,083	Adenovirus
		0,355	0,153	Picornavirus
		0,232	0,106	CMV
		0,312	0,228	Rhinovirus
		0,202	0,156	Poxvirus
		0,112	0,082	Hepatitis
		0,082	0,01	Herpesvirus 3, Human
3.	Chrysin	0,468	0,007	Hepatitis B
		0,469	0,014	Herpes
		0,459	0,03	Influenza
		0,308	0,083	Adenovirus
		0,355	0,153	Picornavirus
		0,232	0,106	CMV
		0,312	0,228	Rhinovirus
		0,141	0,077	HIV
		0,202	0,156	Poxvirus
		0,011	0,01	Herpesvirus 3, Human

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Tabel VII.3
Lanjutan

No.	Falvonoid	Pa	Pi	Aktivitas Antivirus
4.	Luteolin	0,473	0,006	Hepatitis B
		0,471	0,014	Herpes
		0,462	0,03	Influenza
		0,246	0,143	Adenovirus
		0,149	0,067	HIV
		0,215	0,142	CMV
		0,279	0,263	Picornavirus
5.	Scutelarein	0,487	0,005	Hepatitis B
		0,472	0,014	Herpes
		0,43	0,038	Influenza
		0,233	0,019	HIV
		0,273	0,114	Adenovirus
		0,308	0,214	Piconavirus
		0,216	0,14	CMV
		0,304	0,245	Rhinovirus
		0,11	0,085	Hepatitis
6.	Hispidulin	0,441	0,02	Herpes
		0,428	0,011	Hepatitis B
		0,331	0,072	Influenza
		0,314	0,225	Rhinovirus
		0,133	0,088	HIV
		0,221	0,177	Adenovirus
		0,198	0,19	CMV
7.	Chrysoeriol	0,455	0,017	Herpes
		0,432	0,011	Hepatitis B
		0,427	0,038	Influenza

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Tabel VII.3
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No.	Falvonoid	Pa	Pi	Aktivitas Antivirus
8.	Tricetin	0,24	0,151	Adenovirus
		0,216	0,141	CMV
		0,214	0,025	HIV
		0,499	0,005	Hepatitis B
		0,107	0,091	Hepatitis
		0,485	0,011	Herpes
		0,508	0,021	Influenza
9.	Tangeretin	0,452	0,009	Hepatitis B
		0,363	0,053	Herpes
		0,316	0,221	Rhinovirus
		0,218	0,136	CMV
		0,22	0,169	Influenza
10.	Wogonin	0,445	0,019	Herpes
		0,385	0,017	Hepatitis B
		0,358	0,061	Influenza
		0,126	0,102	HIV
		0,286	0,283	Rhinovirus
11.	Rhoifolin	0,723	0,004	Influenza
		0,566	0,005	Herpes
		0,45	0,009	Hepatitis B
		0,142	0,02	Trachoma
		0,132	0,09	HIV
12.	Diosmetin	0,455	0,017	Herpes
		0,432	0,011	Hepatitis B
		0,427	0,038	Influenza

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No.	Falvonoid	Pa	Pi	Aktivitas Antivirus
13.	Acacetin	0,452	0,018	Herpes
		0,417	0,013	Hepatitis B
		0,424	0,039	Influenza
		0,345	0,168	Rhinovirus
		0,233	0,16	Adenovirus
		0,211	0,152	CMV
		0,286	0,251	Piconavirus
		0,08	0,074	Trachoma
14.	Tricin	0,465	0,015	Herpes
		0,452	0,008	Hepatitis B
		0,457	0,031	Influenza
		0,14	0,077	HIV
		0,197	0,191	CMV
Flavonol				
15.	Galangin	0,496	0,005	Hepatitis B
		0,482	0,012	Herpes
		0,4	0,047	Influenza
		0,17	0,047	HIV
		0,253	0,136	Adenovirus
		0,293	0,24	Piconavirus
		0,206	0,166	CMV
16.	Fisetin	0,464	0,015	Herpes
		0,448	0,009	Hepatitis B
		0,322	0,076	Influenza
		0,18	0,041	HIV
		0,246	0,143	Adenovirus
		0,215	0,142	CMV
		0,279	0,263	Piconavirus

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No.	Falvonoid	Pa	Pi	Aktivitas Antivirus
17.	Kaemferol	0,496	0,005	Hepatitis B
		0,483	0,012	Herpes
		0,4	0,047	Influenza
		0,164	0,051	HIV
		0,246	0,143	Adenovirus
		0,203	0,174	CMV
		0,279	0,263	Piconavirus
18.	Kaemferide	0,465	0,015	Herpes
		0,457	0,008	Hepatitis B
		0,362	0,06	Influenza
		0,312	0,228	Rhinovirus
		0,128	0,097	HIV
19.	Robinetin	0,472	0,014	Herpes
		0,461	0,008	Hepatitis B
		0,348	0,065	Influenza
		0,227	0,021	HIV
		0,22	0,178	Adenovirus
		0,203	0,176	CMV
		0,103	0,099	Hepatitis
20.	Herbacetin	0,5	0,004	Hepatitis B
		0,476	0,013	Herpes
		0,414	0,042	Influenza
		0,273	0,114	Adenovirus
		0,185	0,037	HIV
		0,308	0,214	Picornavirus
		0,216	0,14	CMV
		0,104	0,098	Hepatitis
21.	Quercetin	0,17	0,047	HIV
		0,498	0,005	Hepatitis B
		0,484	0,012	Herpes
		0,403	0,046	Influenza

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No.	Falvonoid	Pa	Pi	Aktivitas Antivirus
22.	Ramnetin	0,463	0,007	Hepatitis B
		0,464	0,015	Herpes
		0,375	0,055	Influenza
		0,144	0,073	HIV
		0,296	0,261	Rhinovirus
23.	Isoramnetin	0,465	0,007	Hepatitis B
		0,468	0,014	Herpes
		0,365	0,058	Influenza
		0,137	0,082	HIV
24	Myricetin	0,519	0,004	Hepatitis B
		0,5	0,01	Herpes
		0,444	0,034	Influenza
		0,234	0,019	HIV
		0,119	0,071	Hepatitis
25.	Querstagenin	0,508	0,004	Hepatitis B
		0,48	0,012	Herpes
		0,369	0,057	Influenza
		0,244	0,017	HIV
		0,122	0,066	Hepatitis
		0,22	0,178	Adenovirus
		0,203	0,176	CMV
26.	Gossypetin	0,498	0,005	Hepatitis B
		0,471	0,014	Herpes
		0,415	0,042	Influenza
		0,273	0,114	Adenovirus
		0,179	0,041	HIV
		0,229	0,113	CMV
		0,308	0,214	Picornavirus
		0,104	0,097	Hepatitis

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No.	Falvonoid	Pa	Pi	Aktivitas Antivirus
27.	Isoquercetin	0,715	0,005	Influenza
		0,563	0,005	Herpes
		0,486	0,005	Hepatitis B
		0,171	0,047	HIV
		0,086	0,061	Tracoma
		0,102	0,102	Hepatitis
28.	Ramnazin	0,455	0,008	Hepatitis B
		0,46	0,016	Herpes
		0,358	0,061	Influenza
		0,135	0,085	HIV
29.	Rutin	0,743	0,004	Influenza
		0,526	0,007	Herpes
		0,451	0,009	Hepatitis B
		0,113	0,033	Tracoma
		0,13	0,094	HIV
30.	Morin	0,486	0,011	Herpes
		0,48	0,005	Hepatitis B
		0,4	0,047	Influenza
		0,167	0,049	HIV
		0,246	0,143	Adenovirus
		0,203	0,174	CMV
		0,279	0,263	Picornavirus
31.	Pachypodol	0,456	0,008	Hepatitis B
		0,44	0,021	Herpes
		0,358	0,061	Influenza

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No.	Falvonoid	Pa	Pi	Aktivitas Antivirus
Isoflavon				
32.	Daidzein	0,407	0,032	Herpes
		0,417	0,097	Picornavirus
		0,304	0,086	Adenovirus
		0,296	0,092	Influenza
		0,228	0,064	Hepatitis B
		0,215	0,136	Poxvirus
		0,212	0,149	CMV
		0,084	0,065	Tracoma
		0,119	0,117	HIV
33.	Formononetin	0,382	0,043	Herpes
		0,355	0,153	Picornavirus
		0,27	0,112	Influenza
		0,201	0,086	Hepatitis B
		0,312	0,228	Rhinovirus
		0,236	0,156	Adenovirus
		0,088	0,058	Tracoma
34.	Genistein	0,43	0,024	Herpes
		0,349	0,023	Hepatitis B
		0,371	0,056	Influenza
		0,346	0,162	Picornavirus
		0,249	0,14	Adenovirus
		0,093	0,051	Trachoma
		0,108	0,089	Hepatitis
35.	Biokanin A	0,41	0,031	Herpes
		0,3	0,033	Hepatitis B
		0,333	0,071	Influenza
		0,096	0,048	Trachoma

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Lanjutan

No.	Falvonoid	Pa	Pi	Aktivitas Antivirus
36.	Orobol	0,431	0,023	Herpes
		0,367	0,02	Hepatitis B
		0,374	0,055	Influenza
		0,285	0,252	Picornavirus
		0,128	0,099	HIV
		0,108	0,09	Hepatitis
		0,082	0,069	Tracoma
37.	Tectorigenin	0,395	0,037	Herpes
		0,313	0,03	Hepatitis B
		0,262	0,12	Influenza
		0,078	0,077	Trachoma
		0,274	0,273	Picornavirus
38.	Baptigenin	0,418	0,028	Herpes
		0,281	0,039	Hepatitis B
		0,32	0,077	Influenza
		0,173	0,045	HIV
		0,315	0,204	Picornavirus
		0,223	0,174	Adenovirus
		0,11	0,086	Hepatitis
		0,092	0,079	Hepatitis C
Flavanon				
39.	Pinocembrin	0,691	0,006	Influenza
		0,608	0,005	Rhinovirus
		0,52	0,008	Herpes
		0,482	0,005	Hepatitis B
		0,314	0,205	Picornavirus
		0,231	0,163	Adenovirus
		0,112	0,082	Hepatitis

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Tabel VII.3
Lanjutan

No.	Falvonoid	Pa	Pi	Aktivitas Antivirus
40.	Liquiritigenin	0,64	0,01	Influenza
		0,632	0,004	Rhinovirus
		0,498	0,01	Herpes
		0,427	0,012	Hepatitis B
		0,363	0,143	Picornavirus
		0,278	0,109	Adenovirus
		0,218	0,136	CMV
		0,203	0,155	Poxvirus
		0,102	0,101	Hepatitis
41.	Narigenin	0,691	0,006	Influenza
		0,611	0,005	Rhinovirus
		0,499	0,01	Herpes
		0,483	0,005	Hepatitis B
		0,3	0,227	Picornavirus
		0,225	0,172	Adenovirus
		0,113	0,08	Hepatitis
42.	Sakuranetin	0,691	0,006	Influenza
		0,611	0,005	Rhinovirus
		0,499	0,01	Herpes
		0,483	0,005	Hepatitis B
		0,3	0,227	Picornavirus
		0,225	0,172	Adenovirus
		0,113	0,08	Hepatitis
43.	Eriodictyol	0,692	0,006	Influenza
		0,59	0,007	Rhinovirus
		0,523	0,007	Herpes
		0,485	0,005	Hepatitis B
		0,113	0,081	Hepatitis
44.	Hesperetin	0,673	0,007	Influenza
		0,564	0,01	Rhinovirus
		0,503	0,009	Herpes
		0,455	0,008	Hepatitis B

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No.	Falvonoid	Pa	Pi	Aktivitas Antivirus
45.	Homeriodictyol	0,673	0,007	Influenza
		0,564	0,01	Rhinovirus
		0,503	0,009	Herpes
		0,455	0,008	Hepatitis B
46.	Parietin	0,412	0,03	Herpes
		0,401	0,046	Influenza
		0,366	0,045	Adenovirus
		0,235	0,059	Hepatitis B
		0,249	0,078	CMV
		0,144	0,019	Tracoma
		0,313	0,226	Rhinovirus
		0,205	0,151	Poxvirus
47.	Epigallocatechin	0,712	0,005	Influenza
		0,514	0,02	Rhinovirus
		0,479	0,012	Herpes
		0,397	0,015	Hepatitis B
		0,352	0,005	HIV
		0,172	0,022	Hepatitis
		0,233	0,133	Influenza A
		0,102	0,058	Hepatitis C
48.	Catechin	0,692	0,006	Influenza
		0,52	0,018	Rhinovirus
		0,465	0,015	Herpes
		0,352	0,022	Hepatitis B
		0,281	0,01	HIV
		0,234	0,13	Influenza A
		0,117	0,075	Hepatitis
		0,088	0,087	Hepatitis C

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No.	Falvonoid	Pa	Pi	Aktivitas Antivirus
49.	Naringin	0,817	0,003	Influenza
		0,667	0,003	Herpes
		0,462	0,007	Hepatitis B
		0,462	0,041	Rhinovirus
		0,123	0,027	Tracoma
		0,107	0,091	Hepatitis
Dehidroflavonol				
50.	Pinobanskin	0,617	0,012	Influenza
		0,524	0,018	Rhinovirus
		0,49	0,011	Herpes
		0,384	0,017	Hepatitis B
		0,183	0,018	Hepatitis
		0,336	0,174	Picornavirus
		0,19	0,035	HIV
		0,202	0,155	Poxvirus
		0,204	0,204	Adenovirus
51.	Aromadendrin	0,617	0,012	Influenza
		0,528	0,016	Rhinovirus
		0,491	0,011	Herpes
		0,386	0,017	Hepatitis B
		0,188	0,016	Hepatitis
		0,187	0,036	HIV
		0,322	0,194	Picornavirus
		0,196	0,166	Poxvirus
52.	Fustin	0,528	0,016	Rhinovirus
		0,515	0,021	Influenza
		0,472	0,014	Herpes
		0,296	0,034	Hepatitis B
		0,206	0,028	HIV
		0,176	0,02	Hepatitis
		0,322	0,194	Picornavirus
		0,196	0,166	Poxvirus

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No.	Falvonoid	Pa	Pi	Aktivitas Antivirus
53.	Taksifolin	0,62	0,011	Influenza
		0,492	0,01	Herpes
		0,503	0,023	Rhinovirus
		0,399	0,015	Hepatitis B
		0,142	0,075	HIV
BiFlavonoid				
54.	Agathisflavone	0,491	0,011	Herpes
		0,47	0,006	Hepatitis B
		0,33	0,072	Influenza
		0,284	0,103	Adenovirus
		0,119	0,029	Tracoma
		0,118	0,072	Hepatitis
		0,129	0,096	HIV
55.	Cupresuflavone	0,486	0,011	Herpes
		0,435	0,01	Hepatitis B
		0,433	0,037	Influenza
		0,296	0,092	Adenovirus
		0,094	0,05	Tracoma
		0,203	0,174	CMV
		0,127	0,099	HIV
		0,192	0,172	Poxvirus
		0,279	0,263	Picornavirus
56.	Ginkgetin	0,431	0,024	Herpes
		0,368	0,02	Hepatitis B
		0,341	0,068	Influenza
		0,081	0,071	Tracoma
57.	Sciadopitisin	0,469	0,014	Herpes
		0,369	0,019	Hepatitis B
		0,351	0,064	Influenza
		0,22	0,178	Adenovirus
		0,086	0,062	Tracoma

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No.	Falvonoid	Pa	Pi	Aktivitas Antivirus
58.	Robustaflavone	0,478	0,013	Herpes
		0,417	0,013	Hepatitis B
		0,355	0,062	Influenza
		0,28	0,107	Adenovirus
		0,087	0,06	Tracoma
		0,111	0,085	Hepatitis
59.	Hinokiflavone	0,447	0,009	Hepatitis B
		0,446	0,019	Herpes
		0,311	0,082	Influenza
		0,168	0,049	HIV
		0,274	0,273	Picornavirus
60.	Ochnaflavone	0,426	0,012	Hepatitis B
		0,436	0,022	Herpes
		0,351	0,064	Influenza
		0,126	0,101	HIV
		0,274	0,273	Picornavirus
61.	Amentoflavone	0,49	0,011	Herpes
		0,438	0,01	Hepatitis B
		0,43	0,038	Influenza
		0,287	0,1	Adenovirus
		0,082	0,069	Tracoma
Khalkon				
62.	Isoliquiritigenin	0,689	0,006	Influenza
		0,38	0,045	Herpes
		0,213	0,025	HIV
		0,261	0,127	Adenovirus
		0,232	0,134	Influenza A
		0,222	0,128	CMV
		0,302	0,224	Picornavirus
		0,126	0,061	Hepatitis
		0,11	0,047	Hepatitis C
		0,178	0,118	Hepatitis B

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Lanjutan

No.	Falvonoid	Pa	Pi	Aktivitas Antivirus
62.	Isoliquiritigenin	0,19	0,175	Poxvirus
		0,013	0,006	Herpesvirus 3, Human
63.	Khalkonarigenin	0,689	0,006	Influenza
		0,38	0,045	Herpes
		0,213	0,025	HIV
		0,261	0,127	Adenovirus
		0,232	0,134	Influenza A
		0,222	0,128	CMV
		0,302	0,224	Picornavirus
		0,126	0,061	Hepatitis
		0,11	0,047	Hepatitis C
		0,178	0,118	Hepatitis B
		0,19	0,175	Poxvirus
		0,013	0,006	Herpesvirus 3, Human
64.	Butein	0,695	0,005	Influenza
		0,386	0,042	Herpes
		0,237	0,018	HIV
		0,201	0,087	Hepatitis B
		0,211	0,152	CMV
		0,122	0,067	Hepatitis
		0,105	0,054	Hepatitis C
		0,209	0,194	Adenovirus
		0,208	0,198	Influenza A
65.	Okanin	0,679	0,007	Influenza
		0,406	0,033	Herpes
		0,322	0,006	HIV
		0,246	0,053	Hepatitis B
		0,16	0,028	Hepatitis
		0,146	0,019	Hepatitis C
		0,224	0,122	CMV
		0,234	0,158	Adenovirus
		0,295	0,265	Rhinovirus
		0,21	0,193	Influenza A

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Tabel VII.3
Lanjutan

No.	Falvonoid	Pa	Pi	Aktivitas Antivirus
65.	Okanin	0,011	0,009	Herpesvirus 3, Human
66.	Phloretin	0,361	0,054	Herpes
		0,341	0,068	Influenza
		0,375	0,132	Piconavirus
		0,232	0,107	CMV
		0,165	0,051	HIV
		0,249	0,14	Adenovirus
		0,32	0,213	Rhinovirus
		0,193	0,17	Poxvirus
67.	Phlorizin	0,658	0,009	Influenza
		0,451	0,018	Herpes
		0,344	0,024	Hepatitis B
		0,346	0,163	Piconavirus
		0,155	0,059	HIV
		0,223	0,155	Influenza A
		0,088	0,058	Tracoma
		0,103	0,099	Hepatitis
Auron				
68.	Sulfuretin	0,343	0,064	Herpes
		0,301	0,088	Adenovirus
		0,18	0,115	Hepatitis B
		0,225	0,161	Influenza
		0,296	0,261	Rhinovirus
		0,128	0,098	HIV
		0,202	0,178	CMV
69.	Aureusidin	0,388	0,041	Herpes
		0,296	0,034	Hepatitis B
		0,28	0,103	Influenza
		0,247	0,143	Adenovirus
		0,129	0,096	HIV

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No.	Falvonoid	Pa	Pi	Aktivitas Antivirus
70.	Maritimetin	0,328	0,068	Adenovirus
		0,328	0,073	Herpes
		0,269	0,043	Hepatitis B
		0,144	0,073	HIV
		0,214	0,144	CMV
71.	Leptosidin	0,25	0,051	Hepatitis B
		0,274	0,113	Adenovirus
		0,253	0,127	Herpes
		0,196	0,195	CMV
Antosianidin				
72.	Apigenidin	(-)	(-)	(-)
73.	Luteolinnidin	(-)	(-)	(-)
74.	Pelargonidin	(-)	(-)	(-)
75.	Sianidin	(-)	(-)	(-)
76.	Peonidin	(-)	(-)	(-)
77.	Delpinidin	(-)	(-)	(-)
78.	Petunidin	(-)	(-)	(-)
79.	Malvinidin	(-)	(-)	(-)
80.	Rosinidin	(-)	(-)	(-)

LAMPIRAN 9

HASIL PENELITIAN PREDIKSI *DRUGLIKENESS*

Tabel VII. 4

Hasil prediksi *druglikeness* menggunakan situs *online lipinski's rule of five*

No	Ligan	BM (Da)	Log P	Donor Ikatan H	Akseptor Ikatan H	Ket.
1	*N-(4-tert-butylphenyl)-N-[(1R)-2-(methylamino)-2-oxo-1-(pyridin-3-yl)ethyl]propanamide*	326	-0,13	0	5	Memenuhi
2	*Hexylcarbamic acid*	145	1,83	2	3	Memenuhi
3	*N-(2-phenylethyl)methanesulfonamide*	199	0,63	1	3	Memenuhi
4	Lopinavir	628	4,33	4	9	Tidak Memenuhi
5	Remdesivir	602	2,31	5	13	Tidak Memenuhi
6	Apigenin	270	2,42	3	5	Memenuhi
7	Baicalein	270	2,42	3	5	Memenuhi
8	Chrysin	254	2,71	2	4	Memenuhi
9	Luteolin	386	2,13	4	6	Memenuhi
10	Scutelarein	286	2,13	4	6	Memenuhi
11	Hispidulin	300	2,43	3	6	Memenuhi
12	Chrysoeriol	300	2,43	3	6	Memenuhi
13	Tricetin	302	1,83	5	7	Memenuhi
14	Tangeretin	372	2,91	0	7	Memenuhi
15	Wogonin	284	2,72	2	5	Memenuhi
16	Rhoifolin	578	-1,25	8	14	Tidak Memenuhi
17	Diosmetin	300	2,42	3	6	Memenuhi
18	Acacetin	284	2,72	2	5	Memenuhi
19	Tricin	330	2,44	3	7	Memenuhi
20	Galangin	270	2,6	3	5	Memenuhi
21	Fisetin	286	2,31	4	6	Memenuhi

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Tabel VII.4
Lanjutan

No	Ligan	BM (Da)	Log P	Donor Ikatan H	Akseptor Ikatan H	Ket.
22	Kaemferol	286	2,31	4	6	Memenuhi
23	Kaemferide	300	2,61	3	6	Memenuhi
24	Robinetin	302	2,01	5	7	Memenuhi
25	Herbasetin	302	2,01	5	7	Memenuhi
26	Quercetin	302	2,01	5	7	Memenuhi
27	Ramnetin	316	2,31	4	7	Memenuhi
28	Isoramnetin	316	2,31	4	7	Memenuhi
29	Myricetin	318	1,72	6	8	Memenuhi
30	Querstagenin	318	1,72	6	8	Memenuhi
31	Gossypetin	318	1,72	6	8	Memenuhi
32	Isoquercetin	464	-0,73	8	12	Tidak Memenuhi
33	Ramnazin	330	2,61	3	7	Memenuhi
34	Rutin	610	-1,88	10	16	Tidak Memenuhi
35	Morin	302	2,01	5	7	Memenuhi
36	Pachypodol	344	2,71	2	7	Memenuhi
37	Daidzein	254	2,41	2	4	Memenuhi
38	Formononetin	268	2,71	1	4	Memenuhi
39	Genistein	270	2,11	3	5	Memenuhi
40	Biokanin A	284	2,41	2	5	Memenuhi
41	Orobol	286	1,82	4	6	Memenuhi
42	Tectorigenin	300	2,42	3	6	Memenuhi
43	Baptigenin	286	2,13	4	6	Memenuhi
44	Pinocembrin	256	2,8	2	4	Memenuhi
45	Liquiritigenin	256	2,8	2	4	Memenuhi
46	Narigenin	272	2,51	3	5	Memenuhi
47	Sakuranetin	286	2,81	2	5	Memenuhi
48	Eriodictyol	288	2,21	4	6	Memenuhi
49	Hesperetin	302	2,51	3	6	Memenuhi
50	Homeriodictyol	302	2,51	3	6	Memenuhi
51	Parietin	284	2,19	2	5	Memenuhi

LAMPIRAN 9
(LANJUTAN)

Tabel VII.4
Lanjutan

No	Ligan	BM (Da)	Log P	Donor Ikatan H	Akseptor Ikatan H	Ket.
52	Epigallocatechin	306	2,25	6	7	Tidak Memenuhi
53	Catechin	290	1,55	5	6	Memenuhi
54	Naringin	580	-1,16	8	14	Tidak Memenuhi
55	Pinobanskin	272	1,77	3	5	Memenuhi
56	Aromadendrin	288	1,48	4	6	Memenuhi
57	Fustin	288	1,48	4	6	Memenuhi
58	Taksifolin	304	1,18	5	7	Memenuhi
59	Agathisflavone	538	4,81	6	10	Tidak Memenuhi
60	Cupresuflavone	538	4,81	6	10	Tidak Memenuhi
61	Ginkgetin	566	5,42	4	10	Tidak Memenuhi
62	Siadopitisin	580	5,73	3	10	Tidak Memenuhi
63	Robustaflavone	538	4,81	6	10	Tidak Memenuhi
64	Hinokiflavone	538	5,24	5	10	Tidak Memenuhi
65	Ochnaflavone	358	5,24	5	10	Tidak Memenuhi
66	Amentoflavone	538	4,8	6	10	Tidak Memenuhi
67	Isoliquiritigenin	256	2,7	3	4	Memenuhi
68	Khalkonarigenin	272	2,41	4	5	Memenuhi
69	Butein	272	2,41	4	5	Memenuhi
70	Okanin	288	2,11	5	6	Memenuhi
71	Phloretin	274	2,32	4	5	Memenuhi
72	Phlorizin	436	-0,2	7	10	Tidak Memenuhi
73	Sulfuretin	270	2,42	3	5	Memenuhi
74	Aureusidin	286	2,13	4	6	Memenuhi
75	Maritimetin	286	2,13	4	6	Memenuhi

LAMPIRAN 9
(LANJUTAN)

Tabel VII.4
Lanjutan

No	Ligan	BM (Da)	Log P	Donor Ikatan H	Akseptor Ikatan H	Ket.
76	Leptosidin	300	2,43	3	6	Memenuhi
77	Apigenidin	290	2,68	3	4	Memenuhi
78	Luteolinnidin	271	3,2	4	5	Memenuhi
79	Pelargonidin	271	3,2	4	5	Memenuhi
80	Cyanidin	287	2,9	5	6	Memenuhi
81	Peonidin	301	3,2	4	6	Memenuhi
82	Delpinidin	338	2,32	6	7	Tidak Memenuhi
83	Petunidin	317	2,9	5	7	Memenuhi
84	Malvinidin	366	2,93	4	7	Memenuhi
85	Rosinidin	315	2,23	3	6	Memenuhi

LAMPIRAN 10

HASIL PENELITIAN PREDIKSI FARMAKOKINETIKA

Tabel VII. 5
Hasil prediksi farmakokinetika menggunakan situs *online Pre-ADMET*

No.	Ligan	Absorbsi		Distribusi
		HIA (%)	**CaCo-2 Cell (nm sec)**	***Plasma Protein Binding (%)***
1	*N-(4-tert-butylphenyl)-N-[(1R)-2-(methylamino)-2-oxo-1-(pyridin-3-yl)ethyl]propanamide*	97,64*	22,44**	87,14**
2	*Hexylcarbamic acid*	85,33*	11,08**	73,92**
3	*N-(2-phenylethyl)methanesulfonamide*	94,47*	7,83**	58,35**
4	Lopinavir	93,80*	24,06**	89,71**
5	Remdesivir	38,21	2,89	74,45
6	Apigenin	88,12*	10,54**	97,25*
7	Baicalein	88,11*	1,28***	98,98*
8	Chrysin	92,13*	2,48***	95,09 *
9	Luteolin	79,43*	4,54**	99,72 *
10	Scutelarein	77,42*	4.53**	100 *
11	Hispidulin	93,21*	3,53***	91,80 *
12	Chrysoeriol	88,18*	5,18**	90,87 *
13	Tricetin	63,47**	1,48***	100 *
14	Tangeretin	98,88*	53,60***	87,17 **
15	Wogonin	93,04*	4,28**	90,45 *
16	Rhoifolin	20,17**	9,92**	54,72**
17	Diosmetin	88,18*	7,02**	90,160 *
18	Acacetin	93.04*	12,79**	90,91*
19	Tricin	87.82*	3***	87,66**
20	Galangin	88,12*	3,71***	88,12 **
21	Fisetin	79,43*	9,57**	88,73 **
22	Kaemferol	79,61*	9,58**	89,61 **
23	Kaemferide	88,192*	9,33**	83,99 **
24	Robinetin	63,47**	3,41***	92,63 *
25	Herbasetin	63,47**	5,32**	93,07 *
26	Quercetin	63,49**	3,41***	93,24 *

LAMPIRAN 10
(LANJUTAN)

Tabel VII.5
Lanjutan

No.	Ligan	Absorbsi		Distribusi
		HIA (%)	CaCo-2 Cell (nm sec)	*Plasma Protein Binding (%)*
27	Ramnetin	78,34*	4,93**	85,35 **
28	Isoramnetin	78,35*	4,94**	83,55 **
29	Myricetin	40,96**	0,99***	96,78 *
30	Querstagenin	40,95**	0,99***	98,34 *
31	Gossypetin	65,62**	5,02**	92,67 *
32	Isoquercetin	16.55***	11,96**	65,76**
33	Ramnazin	87,21*	5,09**	81,21 **
34	Rutin	2,86***	7,91**	43,89**
35	Morin	63,49**	17,10**	91,63 *
36	Pachypodol	93,45*	4,38**	79,88 **
37	Daidzein	92,65*	7,72**	88,70 **
38	Formononetin	93,02*	21,21**	86,72 **
39	Genistein	88,12*	5,75**	89,74 **
40	Biokanin A	93,04*	3,41***	85,01 **
41	Orobol	79,42*	11,29**	90,31 *
42	Tectorigenin	93,04*	7,06**	89,44 **
43	Baptigenin	79,41*	1,56***	90,35 *
44	Pinocembrin	92,35*	2,47***	98,45 *
45	Liquiritigenin	92,35*	17,65**	97,99 *
46	Narigenin	87,31*	10,52**	100 *
47	Sakuranetin	92.75*	12,82**	95,75 *
48	Eriodictyol	77,47*	4,53**	100 *
49	Hesperetin	87,19*	7,00**	96,79 *
50	Homeriodictyol	87,19*	5,16**	98,92 *
51	Parietin	94,04*	20,74**	95,21 *
52	Epigallocatechin	45,95**	0,37***	100*
53	Catechin	66,70**	0,65***	100 *
54	Naringin	15,46***	16,35**	69,33**

LAMPIRAN 10
(LANJUTAN)

Tabel VII.5
Lanjutan

No.	Ligan	Absorbsi		Distribusi
		HIA (%)	**CaCo-2 Cell (nm sec)**	***Plasma Protein Binding (%)***
55	Pinobanskin	87,60*	3,69***	86,64 **
56	Aromadendrin	77,83*	9,56**	98,67 *
57	Fustin	77,82*	9,56**	88,03 **
58	Taksifolin	60,16**	3,42***	95,16 *
59	Agathisflavone	79,96*	11,09	100*
60	Cupresuflavone	81,19*	0,36***	100*
61	Ginkgetin	91,11*	11,98**	95,06*
62	Siadopitisin	94,05*	13,68**	90,51*
63	Robustaflavone	81,19*	12,04**	100*
64	Hinokiflavone	86,95*	4,34**	100*
65	Ochnaflavone	91,62*	8,94**	100*
66	Amentoflavone	81,19*	12,87**	100*
67	Isoliquiritigenin	88,30*	20,16**	98,25 *
68	Khalkonarigenin	80,61*	18,10**	100 *
69	Butein	97,80*	56,04**	88,98 **
70	Okanin	66,57**	14,31**	100 *
71	Phloretin	78,98*	18,1**	100*
72	Phlorizin	24,33**	17,98**	77,79**
73	Sulfuretin	88,85*	20,02**	97,24 *
74	Aureusidin	82,57*	8,15**	100 *
75	Maritimetin	92,56*	8,15**	100 *
76	Leptosidin	89,73*	9,81**	98,09 *
77	Apigenidin	(-)	(-)	(-)
78	Luteolinnidin	83,57*	0,68***	100*
79	Pelargonidin	83,58*	1,29***	100*
80	Cyanidin	72,5*	0,65***	100*
81	Peonidin	83,43*	1,65***	100*
82	Delpinidin	(-)	(-)	(-)
83	Petunidin	71,31*	0,96***	100*

LAMPIRAN 10
(LANJUTAN)

Tabel VII.5
Lanjutan

No.	Ligan	Absorbsi		Distribusi
		HIA (%)	**CaCo-2 Cell (nm sec)**	***Plasma Protein Binding (%)***
84	Malvinidin	(-)	(-)	(-)
85	Rosinidin	90,13*	2,12***	87,78**

HIA (%):

*: 70-100 terserap baik

** :20-70 terserap cukup

*** :<20 kurang terserap

CaCo-2 (nm sec):

* :>70 permeabilitas tinggi

** :4-70 permeabilitas sedang

***: <4 permeabilitas rendah

PPB (%):

*: >90 terikat kuat

**: <90 terikat lemah

LAMPIRAN 11

HASIL PENELITIAN PREDIKSI TOKSISITAS

Tabel VII. 6
Hasil prediksi toksisitas menggunakan aplikasi *Toxtree*®

No	Ligan	Mutagen (*Amest Test*)	Karsinogenik		*Kroes TTC*
			Genotoxic	*Non Genotoxic*	
1	*N-(4-tert-butylphenyl)-N-[(1R)-2-(methylamino)-2-oxo-1-(pyridin-3-yl)ethyl]propanamide*	(-)	(-)	(-)	Tidak Beresiko
2	*Hexylcarbamic acid*	(-)	(-)	(-)	Tidak Beresiko
3	*N-(2-phenylethyl)methanesulfonamide*	(-)	(-)	(-)	Tidak Beresiko
4	Lopinavir	(-)	(-)	(-)	Tidak Beresiko
5	Remdesivir	(+)	(+)	(+)	Bersiko
6	Apigenin	(-)	(-)	(-)	Tidak Beresiko
7	Baicalein	(-)	(-)	(-)	Tidak Beresiko
8	Chrysin	(-)	(-)	(-)	Tidak Beresiko
9	Luteolin	(-)	(-)	(-)	Tidak Beresiko
10	Scutelarein	(-)	(-)	(-)	Tidak Beresiko
11	Hispidulin	(-)	(-)	(-)	Tidak Beresiko
12	Chrysoeriol	(-)	(-)	(-)	Tidak Beresiko
13	Tricetin	(-)	(-)	(-)	Tidak Beresiko
14	Tangeretin	(-)	(-)	(-)	Tidak Beresiko
15	Wogonin	(-)	(-)	(-)	Tidak Beresiko

LAMPIRAN 11
(LANJUTAN)

Tabel VII.6
Lanjutan

No	Ligan	Mutagen (*Amest Test*)	Karsinogenik		*Kroes TTC*
			Genotoxic	*Non Genotoxic*	
16	Rhoifolin	(-)	(-)	(-)	Tidak Beresiko
17	Diosmetin	(-)	(-)	(-)	Tidak Beresiko
18	Acacetin	(-)	(-)	(-)	Tidak Beresiko
19	Tricin	(-)	(-)	(-)	Tidak Beresiko
20	Galangin	(-)	(-)	(-)	Tidak Beresiko
21	Fisetin	(-)	(-)	(-)	Tidak Beresiko
22	Kaemferol	(-)	(-)	(-)	Tidak Beresiko
23	Kaemferide	(-)	(-)	(-)	Tidak Beresiko
24	Robinetin	(-)	(-)	(-)	Tidak Beresiko
25	Herbasetin	(-)	(-)	(-)	Tidak Beresiko
26	Quercetin	(-)	(-)	(-)	Tidak Beresiko
27	Ramnetin	(+)	(-)	(-)	Tidak Beresiko
28	Isoramnetin	(+)	(-)	(-)	Tidak Beresiko
29	Myricetin	(+)	(-)	(-)	Tidak Beresiko
30	Querstagenin	(+)	(-)	(-)	Tidak Beresiko
31	Gossypetin	(+)	(-)	(-)	Tidak Beresiko
32	Isoquercetin	(+)	(-)	(-)	Tidak Beresiko

LAMPIRAN 11
(LANJUTAN)

Tabel VII.6
Lanjutan

No	Ligan	Mutagen (*Amest Test*)	Karsinogenik		*Kroes TTC*
			Genotoxic	*Non Genotoxic*	
33	Ramnazin	(+)	(-)	(-)	Tidak Beresiko
34	Rutin	(-)	(-)	(-)	Tidak Beresiko
35	Morin	(-)	(-)	(-)	Tidak Beresiko
36	Pachypodol	(+)	(-)	(-)	Tidak Beresiko
37	Daidzein	(-)	(-)	(-)	Tidak Beresiko
38	Formononetin	(-)	(-)	(-)	Tidak Beresiko
39	Genistein	(-)	(-)	(-)	Tidak Beresiko
40	Biokanin A	(-)	(-)	(-)	Tidak Beresiko
41	Orobol	(-)	(-)	(-)	Tidak Beresiko
42	Tectorigenin	(-)	(-)	(-)	Tidak Beresiko
43	Baptigenin	(-)	(-)	(-)	Tidak Beresiko
44	Pinocembrin	(-)	(-)	(-)	Tidak Beresiko
45	Liquiritigenin	(-)	(-)	(-)	Tidak Beresiko
46	Narigenin	(-)	(-)	(-)	Tidak Beresiko
47	Sakuranetin	(-)	(-)	(-)	Tidak Beresiko
48	Eriodictyol	(-)	(-)	(-)	Tidak Beresiko
49	Hesperetin	(-)	(-)	(-)	Tidak Beresiko

LAMPIRAN 11
(LANJUTAN)

Tabel VII.6
Lanjutan

No	Ligan	Mutagen (*Amest Test*)	Karsinogenik		*Kroes TTC*
			Genotoxic	*Non Genotoxic*	
50	Homeriodictyol	(-)	(-)	(-)	Tidak Beresiko
51	Parietin	(+)	(+)	(-)	Beresiko Rendah
52	Epigallocatechin	(-)	(-)	(-)	Tidak Beresiko
53	Catechin	(-)	(-)	(-)	Tidak Beresiko
54	Naringin	(-)	(-)	(-)	Tidak Beresiko
55	Pinobanskin	(-)	(-)	(-)	Tidak Beresiko
56	Aromadendrin	(-)	(-)	(-)	Tidak Beresiko
57	Fustin	(-)	(-)	(-)	Tidak Beresiko
58	Taksifolin	(-)	(-)	(-)	Tidak Beresiko
59	Agathisflavone	(-)	(-)	(+)	Tidak Beresiko
60	Cupresuflavone	(-)	(-)	(+)	Tidak Beresiko
61	Ginkgetin	(-)	(-)	(+)	Tidak Beresiko
62	Siadopitisin	(-)	(-)	(+)	Tidak Beresiko
63	Robustaflavone	(-)	(-)	(+)	Tidak Beresiko
64	Hinokiflavone	(-)	(-)	(-)	Tidak Beresiko
65	Ochnaflavone	(-)	(-)	(-)	Tidak Beresiko
66	Amentoflavone	(-)	(-)	(+)	Tidak Beresiko

LAMPIRAN 11
(LANJUTAN)

Tabel VII.6
Lanjutan

No	Ligan	Mutagen (*Amest Test*)	Karsinogenik		*Kroes TTC*
			Genotoxic	*Non Genotoxic*	
67	Isoliquiritigenin	(+)	(+)	(-)	Beresiko Rendah
68	Khalkonarigenin	(+)	(+)	(-)	Beresiko Rendah
69	Butein	(+)	(+)	(-)	Beresiko Rendah
70	Okanin	(+)	(+)	(-)	Beresiko Rendah
71	Phloretin	(-)	(-)	(-)	Tidak Beresiko
72	Phlorizin	(-)	(-)	(-)	Tidak Beresiko
73	Sulfuretin	(-)	(-)	(-)	Tidak Beresiko
74	Aureusidin	(-)	(-)	(-)	Tidak Beresiko
75	Maritimetin	(-)	(-)	(-)	Tidak Beresiko
76	Leptosidin	(-)	(-)	(-)	Tidak Beresiko
77	Apigenidin	(-)	(-)	(-)	Tidak Beresiko
78	Luteolinnidin	(-)	(-)	(-)	Tidak Beresiko
79	Pelargonidin	(-)	(-)	(-)	Tidak Beresiko
80	Cyanidin	(-)	(-)	(-)	Tidak Beresiko
81	Peonidin	(-)	(-)	(-)	Tidak Beresiko
82	Delpinidin	(-)	(-)	(-)	Tidak Beresiko
83	Petunidin	(-)	(-)	(-)	Tidak Beresiko

LAMPIRAN 11
(LANJUTAN)

Tabel VII.6
Lanjutan

No	Ligan	Mutagen (*Amest Test*)	Karsinogenik		*Kroes TTC*
			Genotoxic	*Non Genotoxic*	
84	Malvinidin	(-)	(-)	(-)	Tidak Beresiko
85	Rosinidin	(-)	(-)	(-)	Tidak Beresiko

LAMPIRAN 12

HASIL PENELITIAN SIMULASI MOLECULAR DOCKING

Tabel VII. 7
Hasil penambatan senyawa Flavonoid pada reseptor SARS-COV-2 ID PDB 5RL4

No.	Ligan	ΔG (kkal/mol)	Residu Asam Amino
1	*N-(4-tert-butylphenyl)-N-[(1R)-2-(methylamino)-2-oxo-1-(pyridin-3-yl)ethyl]propanamide*	-8,47	MET 49, ASN 142, CYS 145
2	Lopinavir	-10,86	MET 49, MET 165, ASN 142, CYS 145, GLU 166
3	Remdesivir	-10,39	MET 49, ASN 142, CYS 145, ARG 188, GLY 143, PRO 168, THR 26, THR 25
4	Apigenin	-7,31	MET 49 MET 165, CYS 145, ASN 142, GLY 148, GLN 189
5	Baicalein	-7,26	MET 49, MET 165, CYS 145, GLY 143, GLN 189
6	Chrysin	-7,23	MET 49, MET 165, CYS 44, CYS 145, GLU 166, GLY 148
7	Luteolin	-7,33	MET 49, MET 165, CYS 145, GLY 143, GLN 189, GLY 143, THR 190
8	Scutelarein	-7,39	MET 49, MET 165, CYS 145, GLY 143, GLN 189
9	Hispidulin	-7,72	MET 165, CYS 145, GLY 143, GLN 189
10	Chrysoeriol	-7,59	MET 165, CYS 145, ASN 142,GLU 166, GLY 143, GLN 189
11	Tricetin	-7,55	MET 165, CYS 145, ASN 142, GLY 143, GLN 189, ARG 188, THR 190
12	Tangeretin	-8,57	MET 49, MET 165, GLU 166, ASN 187, GLU 166, LEU 141, PHE 140

LAMPIRAN 12
(LANJUTAN)

Tabel VII.7
Lanjutan

No.	Ligan	ΔG (kkal/mol)	Residu Asam Amino
13	Wogonin	-7,69	MET 165, CYS 145, ASN 142, GLY 143, GLN 189
14	Rhoifolin	-9,34	MET 49, CYS 44, GLU 166, GLY 143, THR 25
15	Diosmetin	-7,79	MET 49, MET 165, GLN 189, GLY 143, THR 190, ARG 188
16	Acacetin	-7,75	MET 49, MET 165, CYS 145, GLY 143, GLN 189, THR 190, ARG 188
17	Tricin	-8	MET 165, CYS 145, ASN 142 GLY 143, GLN 189, GLY 148, THR 190
18	Galangin	-7,4	MET 49, MET 165, CYS 145, ASN 142, GLY 148
19	Fisetin	-7,38	MET 49, MET 165, CYS 145, GLU 166, GLY 148, GLN 189, ARG 188
20	Kaemferol	-7,45	MET 49 MET 165, CYS 145, GLU 166, GLY 143, GLN 189
21	Kaemferide	-7,87	MET 49, MET 165, CYS 145, GLY 143, GLN 189, THR 190, ARG 188
22	Robinetin	-7,54	MET 165, CYS 145, ASN 142, GLY 143, GLN 189, ARG 188, THR 190
23	Herbasetin	-7,47	MET 165, CYS 145, GLY 143, GLN 189
24	Quercetin	-7,45	MET 49, CYS 44, GLU 166, GLY 143, GLN 189, ARG 188
25	Ramnetin	-8,01	MET 49, CYS 44, CYS 145, GLU 166, GLY 143, ASP 187, LEU 141
26	Isoramnetin	-7,7	MET 49, MET 165, CYS 145, GLY 143, GLN 189
27	Myricetin	-7,58	MET 165, CYS 145, ASN 142, GLY 143, GLN 189, THR 190, ARG 188
28	Querstagenin	-7,49	MET49, MET 165, CYS 145, ASN 142, GLY 143, GLN 189, THR 190
29	Gossypetin	-7,49	MET 49, MET 165, CYS 145, GLY 143, GLN 189
30	Isoquercetin	-8,92	PRO 168, GLU 166
31	Ramnazin	-8,24	MET 49, CYS 145, GLY 148, ASP 187

LAMPIRAN 12
(LANJUTAN)

Tabel VII.7
Lanjutan

No.	Ligan	ΔG (kkal/mol)	Residu Asam Amino
32	Rutin	-9,57	GLU 166, GLN 189, PH3 140, THR 26, PRO 168, HSD 41
33	Morin	-7,23	MET 165, GLY 148
34	Pachypodol	-8,38	MET 49, CYS 44, CYS 145, GLU 166, GLY 143, ARG 188, HSD 41
35	Daidzein	-7,4	MET 165, CYS 145, GLY 143, GLN 189, THR 190
36	Formononetin	-7,72	MET 165, CYS 145, GLU 166, GLY 143, GLN 189, THR 190
37	Genistein	-7,34	MET 165, CYS 145, GLU 166, GLY 143, GLN 189, THR 190
38	Biokanin A	-7,69	MET 165, CYS 145, GLU 166, GLY 143, GLN 189, THR 190
39	Orobol	-7,42	MET 165, CYS 145, GLU 166, GLY 143, GLN 189, THR 190
40	Tectorigenin	-7,52	MET 165, CYS 145, GLY 143, GLN 189
41	Baptigenin	-7,54	MET 165, CYS 145, GLU 166, GLY 143, GLN 189, THR 190, ARG 188
42	Pinocembrin	-7,27	MET ASN 142, GLU 166, ARG 188
43	Liquiritigenin	-7,25	MET 49, MET 165, GLU 166, GLN 189, ARG 188
44	Narigenin	-7,39	MET 49, CYS 143, THR 26
45	Sakuranetin	-7,71	MET 49, ASN 142, GLU 166, PHE 140
46	Eriodictyol	-7,61	MET 49, ASN 142, GLU 166, PHE 140
47	Hesperetin	-7,65	MET 49, CYS 44, GLU 166, PHE 140, HSD 41
48	Homeriodictyol	-7,81	MET 49, GLU 166, ASN 142
49	Parietin	-7,6	MET 49, CYS 145, GLY 148, GLU 166, LEU 141
50	Epigallocatechin	-7,72	MET 49, GLU 166, ASN 142
51	Catechin	-7,66	MET 49, GLU 166
52	Naringin	-10,13	MET 49, GLU 166, ASN 142, PHE 140, THR 24

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(LANJUTAN)

Tabel VII.7
Lanjutan

No.	Ligan	ΔG (kkal/mol)	Residu Asam Amino
53	Pinobanskin	-7,36	MET 49, GLU 166, ASN 142
54	Aromadendrin	-7,43	MET 49, GLU 166, ASN 142, PHE 140
55	Fustin	-7,4	MET 49, GLU 166, ASN 142, PHE 140
56	Taksifolin	-7,67	MET 49, GLU 166
57	Agathisflavone	-7,71	MET 165, GLN 189, PRO 168, SER 46
58	Cupresuflavone	-8,42	GLN 192, PRO 184, ARG 188, ALA 191, VAL 186
59	Ginkgetin	-9,13	MET 49, MET 165, ASN 142, CYS 145, GLU 166, GLY 143, GLN 189, PRO 168, LEU 141
60	Siadopitisin	-9,51	MET 165, CYS 145, GLN 189, ASN 142, THR 190, PRO 168
61	Robustaflavone	-8,02	MET 49, MET 165, ASN 142, CYS 145, GLY 143, GLN 189, THR 190, THR 25
62	Hinokiflavone	-8,51	MET 165, GLN 189, GLY 143, GLU 166, THE 190, TH4 25, THR 26, PRO 186
63	Ochnaflavone	-9,66	MET 49, MET 165, CYS 44, CYS 145, GLU 166, GLY 148, ASN 142, THR 26, PRO 168
64	Amentoflavone	-8,98	MET 49, MET 165, CYS 145, GLN 189, PRO 168
65	Isoliquiritigenin	-7,82	CYS 145, ASN 142, GLU 166, GLY 143, PHE 140, THR 26
66	Khalkonarigenin	-7,44	ASN 142, GLU 166, GLY 143
67	Butein	-7,66	MET 49, CYS 44, CYS 145, ASN 142, GLY 143
68	Okanin	-7,51	MET 49, MET 165, GLN 189
69	Phloretin	-7,76	MET 49, MET 165, GLU 166, ASN 142, GLN 189, HSE 164
70	Phlorizin	-9,12	MET 165, ASN 142, GLU 166, GLN 189
71	Sulfuretin	-7,71	CYS 145, ASN 142, GLU 166, PHE 140
72	Aureusidin	-7,75	MET 165, ASN 142, GLU 166, PHE 140
73	Maritimetin	-7,8	MET 49, GLU 166, LEU 141
74	Leptosidin	-8,03	MET 49, ASN 142, GLU 166, PHE 140

LAMPIRAN 12
(LANJUTAN)

Tabel VII. 8
Hasil penambatan senyawa Flavonoid pada reseptor SARS-COV-2 ID PDB 5R7Y

No.	Ligan	ΔG (kkal/mol)	Residu Asam Amino
1	*N-(2-phenylethyl) methanesulfonamide*	-6,91	MET 165, GLU 166, GLN 189, LEU 167, THR 190
2	Lopinavir	-9,79	MET 49, GLU 166, GLN 189, ASN 142, HSE 164, PRO 168
3	Remdesivir	-9,95	MET 49, GLU 166, GLN 189, ASN 142, HSE 164, PHE 140, SER 46, HSE 41
4	Apigenin	-6,65	MET 165, GLU 166, CYS 145, THR 190, ARG 188, PRO 168
5	Baicalein	-6,82	MET 165, GLU 166, GLN 189, THR 190, PRO 168
6	Chrysin	-6,72	MET 165, GLU 166, GLN 189, THR 190, PRO 168
7	Luteolin	-7,04	PRO 168, THR 190
8	Scutelarein	-6,85	MET 165, GLN 189, THR 190, PRO 168, HSE 41
9	Hispidulin	-6,8	MET 165, GLU 166, CYS 145, THR 190, PRO 168
10	Chrysoeriol	-7,11	MET 165, GLN 189, THR 190, PRO 168, HSE 41
11	Tricetin	-7,11	MET 165, GLN 189, THR 190, PRO 168, HSE 41
12	Tangeretin	-8,25	GLN 189, THR 190, PRO 186, LEU 141
13	Wogonin	-7,03	MET 165, THR 190, PRO 168
14	Rhoifolin	-8,58	MET 49, MET 165, THR 24, HSE 44
15	Diosmetin	-7,33	MET 165, GLN 189, THR 190, PRO 168, HSE 41
16	Acacetin	-6,99	MET 165, GLU 166, THR 190, PRO 168
17	Tricin	-7,29	MET 165, GLU 166, CYS 145, PRO 168, ARG 188

LAMPIRAN 12
(LANJUTAN)

Tabel VII.8
Lanjutan

No.	Ligan	ΔG (kkal/mol)	Residu Asam Amino
18	Galangin	-6,64	MET 165, THR 190, PRO 168, ARG 188
19	Fisetin	-6,84	MET 49, CYS 145, GLU 166
20	Kaemferol	-6,7	MET 49, THR 190, PRO 168, ARG 188, HSE 41
21	Kaemferide	-7,06	MET 165, GLU 166, THR 190, PRO 168, LEU 141
22	Robinetin	-6,85	MET 49, CYS 145, HSE 41
23	Herbasetin	-6,78	MET 49, MET 165, THR 190, HSE 41, PRO 168
24	Quercetin	-6,89	CYS 145, GLU 166, PHE 140
25	Ramnetin	-7,08	MET 165, PRO 168, THR 190, LEU 176
26	Isoramnetin	-7,01	MET 165, CYS 145, THR 190, PRO 168, ARG 188, HSE 41
27	Myricetin	-7,14	MET 49, CYS 44, HSE 41, SER 46
28	Querstagenin	-7,06	MET 49, THR 190, PRO 168, ARG 188, HSE 41
29	Gossypetin	-7,06	MET 49, THR 190, PRO 168, ARG 188, HSE 41
30	Isoquercetin	-8,78	CYS 44, GLU 166, PHE 140, HSE 41
31	Ramnazin	-7,29	MET 49, MET 165, ASN 142, ARG 188
32	Rutin	-8,85	GLU 166, GLN 189, CYS 44, SER 46, PRO 168, CLA 6
33	Morin	-6,6	MET 49, ASN 142, HSE 41, SER 42
34	Pachypodol	-7,59	MET 49, MET 165, ARG 188, HSE 41, LEU 167
35	Daidzein	-6,87	MET 49, MET 165, PRO 168
36	Formononetin	-7,02	MET 165, GLN 189, THR 190, PRO 168, ARG 188
37	Genistein	-6,93	MET 165, GLN 189, THR 190, ARG 188, PRO 168

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(LANJUTAN)

Tabel VII.8
Lanjutan

No.	Ligan	ΔG (kkal/mol)	Residu Asam Amino
38	Biokanin A	-7,13	MET 165, GLN 189, THR 190, ARG 188, PRO 168
39	Orobol	-7,05	CYS 145, GLU 166, GLN 188, PRO 168, HSE 41
40	Tectorigenin	-6,85	MET 49, MET 165, THR 190, HSE 41, PRO 168
41	Baptigenin	-7,06	MET 165, GLN 189, THR 190, PRO 168
42	Pinocembrin	-7,07	MET 165, CYS 145, GLU 166, GLN 189, THR 190, PRO 168, LEU 167
43	Liquiritigenin	-7,09	MET 49, MET 165, CYS 145, GLU 166, GLN 189, THR 190, PRO 168, LEU 167
44	Narigenin	-7,4	CYS 145, GLN 189, THR 190, PRO 168, HSE 41, LEU 167
45	Sakuranetin	-7,57	MET 49, MET 165, GLU 166, ASN 142, PHE 140, HSE 41
46	Eriodictyol	-7,69	CYS 145, GLN 189, THR 190, PRO 168, HSE 41, LEU 167
47	Hesperetin	-7,56	MET 165, PRO 168, THR 190, LEU 176, ARG 188
48	Homeriodictyol	-7,54	MET 165, PRO 168
49	Parietin	-7,22	MET 165, CYS 145,GLU 166 THR 190, PRO 168, ARG 188
50	Epigallocatechin	-7,71	CYS 145, GLU 166, GLN 189, THR 190, LEU 141
51	Catechin	-7,66	MET 165, CYS 145, GLU 166, GLN 189, THR 190, PRO 168, ARG 188
52	Naringin	-9,84	MET 165, GLN 189, PHE 140
53	Pinobanskin	-7,04	GLU 166, CYS 145, PRO 168, THR 190, ARG 188
54	Aromadendrin	-7,3	GLN 189, CYS 145, PRO 168, THR 190, ARG 188, LEU 176, HSE 41
55	Fustin	-7,19	MET 165, GLU 166, ASN 142, PHE 140, HSE 41

LAMPIRAN 12
(LANJUTAN)

Tabel VII.8
Lanjutan

No.	Ligan	ΔG (kkal/mol)	Residu Asam Amino
56	Taksifolin	-7,52	CYS 145, GLN 189, PRO 168, HSE 41, ARG 188, LEU 167
57	Agathisflavone	-7,52	GLU 166
58	Cupresuflavone	-7,52	PRO 168, THR 190, ALA 191
59	Ginkgetin	-8,08	ARG 60, LYS 61
60	Siadopitisin	-8,07	CYS 145, GLU 166, PRO 168, LEU 141, LEU 167
61	Robustaflavone	-7,35	GLN 189, THR 190, LEU 50
62	Hinokiflavone	-7,36	GLU 166, LEU 50
63	Ochnaflavone	-8,17	MET 49, GLN 189, PRO 168, HSE 41
64	Amentoflavone	-7,74	MET 165, CYS 145, THR 190, PRO 168, ASN 142
65	Isoliquiritigenin	-6,36	MET 49, MET 165, GLN 189, PRO 168
66	Khalkonarigenin	-6,85	CYS 145, GLU 166, GLU 189, PRO 168, THR 190, HSE 41
67	Butein	-6,79	GLU 166, PRO 168, PHE 140
68	Okanin	-6,74	GLN 189, CYS 145, PRO 168, HSE 41
69	Phloretin	-7,34	MET 49, MET 165, GLU 166, ASN 142, PHE 140, ARG 188, HSE 41
70	Phlorizin	-8,67	MET 49, CYS 145, GLU 166, ARG 188, LEU 141, SER 46
71	Sulfuretin	-7,28	CYS 145, GLU 166, GLN 189, THR 190, LEU 141, PRO 168
72	Aureusidin	-7,59	CYS 141, GLN 189, PRO 168, HSE 41
73	Maritimetin	-7,84	MET 165, GLU 166, GLN 189, THR 190, PRO 168, HSE 41, ARG 188
74	Leptosidin	-7,9	MET 49, MET 165, CYS 145, GLU 166, THR 190, PRO 168

LAMPIRAN 12
(LANJUTAN)

Tabel VII. 9
Hasil penambatan senyawa Flavonoid pada reseptor SARS-COV-2 ID PDB 7BUY

No	Ligan	ΔG (kkal/mol)	Residu Asam Amino
1	*Hexylcarbamic acid*	-6,49	PRO 168
2	Lopinavir	-9,89	MET 49, MET 165, ASN 142, HSE 41, SER 46, THR 26
3	Remdesivir	-10,07	MET 145, ASN 142, CYS 145, GLU 166, GLN 189, GLY 143, THR 190
4	Apigenin	-6,72	PRO 168, MET 165, HSE 41
5	Baicalein	-6,91	PRO 168, MET 49, MET 165, GLN 189, THR 190
6	Chrysin	-6,86	MET 49, MET 165, CYS 145, GLU 166, GLY 143
7	Luteolin	-7,1	MET 49, ASN 142, CYS 145, HSE 41
8	Scutelarein	-7	MET 49, MET 165, CYS 44, CYS 145, GLU 166, GLY 143
9	Hispidulin	-7,09	MET 49, MET 165, CYS 145, GLU 166, GLY 143, LEU 141
10	Chrysoeriol	-7,28	PRO 158, MET 165, HSE 41
11	Tricetin	-6,97	PRO 158, MET 165, HSE 41
12	Tangeretin	-8,29	MET 49, MET 165, CYS 145, GLU 166,GLN 192, LEU 141, THR 190
13	Wogonin	-7,19	MET 49, MET 165, CYS 145, GLU 166,GLY 143
14	Rhoifolin	-9,13	MET 49, GLU 166, SER 46, ARG 188, HSE 41, LEU 50
15	Diosmetin	-7,15	MET 49, MET 165, CYS 145, ASN 142, HSE 41, ARG 188
16	Acacetin	-7,17	PRO 168, MET 165, GLU 166, GLN 192, THR 190
17	Tricin	-7,62	PRO 168, MET 165, HSE 41
18	Galangin	-6,71	MET 49, MET 165, CYS 145, GLU 166, GLY 143
19	Fisetin	-7,01	PRO 168, MET 165, HSE 41, ARG 188, GLN 192

LAMPIRAN 12
(LANJUTAN)

Tabel VII.9
Lanjutan

No	Ligan	ΔG (kkal/mol)	Residu Asam Amino
20	Kaemferol	-6,88	PRO 168, MET 165, GLU 166, THR 190, GLN 192
21	Kaemferide	-7,06	MET 165, ARG 188, THR 190, LEU 141
22	Robinetin	-7,04	PRO 168, MET 165, HSE 41, ARG 188, GLN 192
23	Herbasetin	-6,9	MET 49, CYS 145, GLY 143
24	Quercetin	-6,76	MET 49, MET 165, GLU 166, PHE 140
25	Ramnetin	-7,65	MET 49, MET 165, GLY 143, PHE 140, ARG 188
26	Isoramnetin	-7,15	PRO 168, MET 165, HSE 41, ARG 188, ARG 188
27	Myricetin	-6,99	MET 49, MET 165, CYS 143, HSE 41, CYS 44, GLY 143
28	Querstagenin	-7,02	PRO 168, MET 49, MET 165, ARG 188, THR 190
29	Gossypetin	-7,15	MET 49, CYS 44, CYS 145, GLU 166, GLY 143
30	Isoquercetin	-8,67	MET 165, ASN 142, GLU 166, PHE 140
31	Ramnazin	-7,73	MET 165, GLY 143, PHE 140
32	Rutin	-8,97	ASN 142, GLU 166, LEU 141
33	Morin	-6,69	MET 165, ASN 142, GLU 166, GLY 143
34	Pachypodol	-8,09	MET 49, MET 165, CYS 145, GLU 166, GLY 143, ARG 188, PHR 140
35	Daidzein	-7	MET 165, CYS 145, GLU 166, GLY 143, THR 190
36	Formononetin	-7,39	MET 165, CYS 145, GLU 166, GLY 143, THR 190
37	Genistein	-7,05	MET 165, CYS 145, GLU 166, GLY 143, ARG 188
38	Biokanin A	-7,35	MET 165, CYS 145, GLU 166, GLY 143, THR 190

LAMPIRAN 12
(LANJUTAN)

Tabel VII.9
Lanjutan

No	Ligan	ΔG (kkal/mol)	Residu Asam Amino
39	Orobol	-7,06	MET 165, CYS 145, GLU 166, GLY 143, ARG 188
40	Tectorigenin	-7,33	MET 165, CYS 165, GLY 143, ARG 188
41	Baptigenin	-7,28	MET 165, CYS 145, GLU 166, GLY 143, ARG 188
42	Pinocembrin	-7,32	PRO 186, MET 49, MET 165, LEU 167, THR 190
43	Liquiritigenin	-7,19	MET 165, THR 190
44	Narigenin	-7,16	MET 49, MET 165, CYS 44, CYS 145, GLU 166, GLY 143
45	Sakuranetin	-7,39	PRO 186, MET 49, HSE 41, LEU 167, THR 190
46	Eriodictyol	-7,23	MET 165, ASN 142, GLU 166, ARG 188
47	Hesperetin	-7,54	MET 165, CYS 145, GLU 166, GLY 143, ARG 188, THR 190
48	Homeriodictyol	-7,52	PRO 168, MET 49, MET 165, HSE 41, THR 190
49	Parietin	-7,31	MET 49, MET 165, CYS 145 , THR 190, ARG 188
50	Epigallocatechin	-7,53	MET 165, CYS 143, HSE 164, HSE 41, SER 144, GLU 166, GLY 143
51	Catechin	-7,27	MRT 165, GLU 166, HSE 164, LEU 141
52	Naringin	-9,69	MET 49, CYS 44, CYS 145, GLU 166, GLY 143, SER 144, ARG 188, LEU 141
53	Pinobanskin	-7,05	PRO 168, MET 49, MET 165, THR 190
54	Aromadendrin	-7,19	PRO 168, MET 165, HSE 41, LEU 167, THR 190, ARG 188
55	Fustin	-7,27	MET 165, ASN 142, GLU 166, PHE 140

LAMPIRAN 12
(LANJUTAN)

Tabel VII.9
Lanjutan

No	Ligan	ΔG (kkal/mol)	Residu Asam Amino
56	Taksifolin	-7,39	MET 165, GLU 166, LEU 141, HSE 164
57	Agathisflavone	-8,02	CYS 145, ASN 142, GLY 143, TYR 118
58	Cupresuflavone	-7,78	MET 49, MET 165, ASN 142, GLU 166, GLY 143
59	Ginkgetin	-8,96	PRO 168, MET 49, MET 165, CTS 145, HSE 41, THR 190, ASN 142, PHE 140, GLY 143,
60	Siadopitisin	-8,4	MET 49, CYS 145, ASN 42, GLY 143, PHE 140
61	Robustaflavone	-7,35	MET 145, ASN 142, GLU 166, GLY 143, THR 24
62	Hinokiflavone	-8,02	MET 49, MET 165, HSE 41, THR 24, THR 45, GLY 23
63	Ochnaflavone	-8,68	PRO 168, MET 49, MET 165, CYS 145, HSE 41, THR 26, THR 190
64	Amentoflavone	-8,4	PRO 168, MET 49, MET 165, GLLU 166, GLN 143, HSE 41
65	Isoliquiritigenin	-6,85	MET 165, CYS 145, GLU 166, GLY 143, THR 26
66	Khalkonarigenin	-7,07	MET 49, MET 165, ASN 142, HSE 41
67	Butein	-7,28	MET 49, 165, CYS 44, ARG 188, HSE 41
68	Okanin	-7,18	CYS 145, ASN 142, GLU 166, LEU 141, LEU 26
69	Phloretin	-7,43	MET 49, MET 165, ASN 142, CYS 145, SER 144
70	Phlorizin	-8,65	PRO 168, GLU 166, THR 190
71	Sulfuretin	-7,44	MET 165, CYS 145, GLY 143, LEU 141, ARG 188
72	Aureusidin	-7,63	MET 49, MET 165, HSE 41, ASN 142, PHE 140, ARG 188
73	Maritimetin	-7,48	PRO 168, MET 49, MET 165, GLU 166, THR 190

LAMPIRAN 12
(LANJUTAN)

Tabel VII.9
Lanjutan

No	Ligan	ΔG (kkal/mol)	Residu Asam Amino
74	Leptosidin	-7,73	MET 165, CYS 145, GLU 166, GLY 143, LEU 141, ARG 188

DAFTAR RIWAYAT HIDUP

DATA PRIBADI

Nama	: Fadhilah Utami
Tempat/Tanggal Lahir	: Garut, 8 April 1999
Jenis Kelamin	: Perempuan
Agama	: Islam
Warga Negara	: Indonesia
Status	: Mahasiswa
Alamat	: Kp. Cioyod RT 004 RW 001 Desa Mekaryaja Kec. Bayongbong, Kab. Garut- Jawa Barat, ID
No. Telepon	: +6289699627212
Email	: utamifadhilah84@gmail.com

PENDIDIKAN

Formal

SDN Mekarjaya 1, Garut 2005-2011

MTsN 1 Garut, Garut 2011-2014

SMAN 11 Garut, Garut 2014-2017

Universitas Garut Prodi S1 Farmasi, Garut 2017-2021

Non Formal

PKL PT. Berkah Alam Nusantara, Garut

PKL Apotek Assyifa, Garut

PENGALAMAN ORGANISASI

SEKOLAH MENENGAH PERTAMA (SMP)

Ikatan Pustakawan Siswa MTsN 1 Garut (IPSM) (Non Formal)

Olimpiade Matematika (Non Formal)

SEKOLAH MENENGAN ATAS (SMA)

Ikatan Pelajar Mesjid Al-Kautsar (IPMAKA) (Formal)

Olimpiade Matematika (Non Formal)

UNIVERSITAS

Lembaga Dakwah Kampus Asyifa (Formal)

- Sebagai Anggota 2017-2018

Badan Eksekutif Mahasiswa (Formal)

- Sebagai Anggota Departemen Eksternal 2018-2019

Himpunan Mahasiswa Farmasi (Formal)

-Sebagai Wakil Ketua Umum 2019-2020