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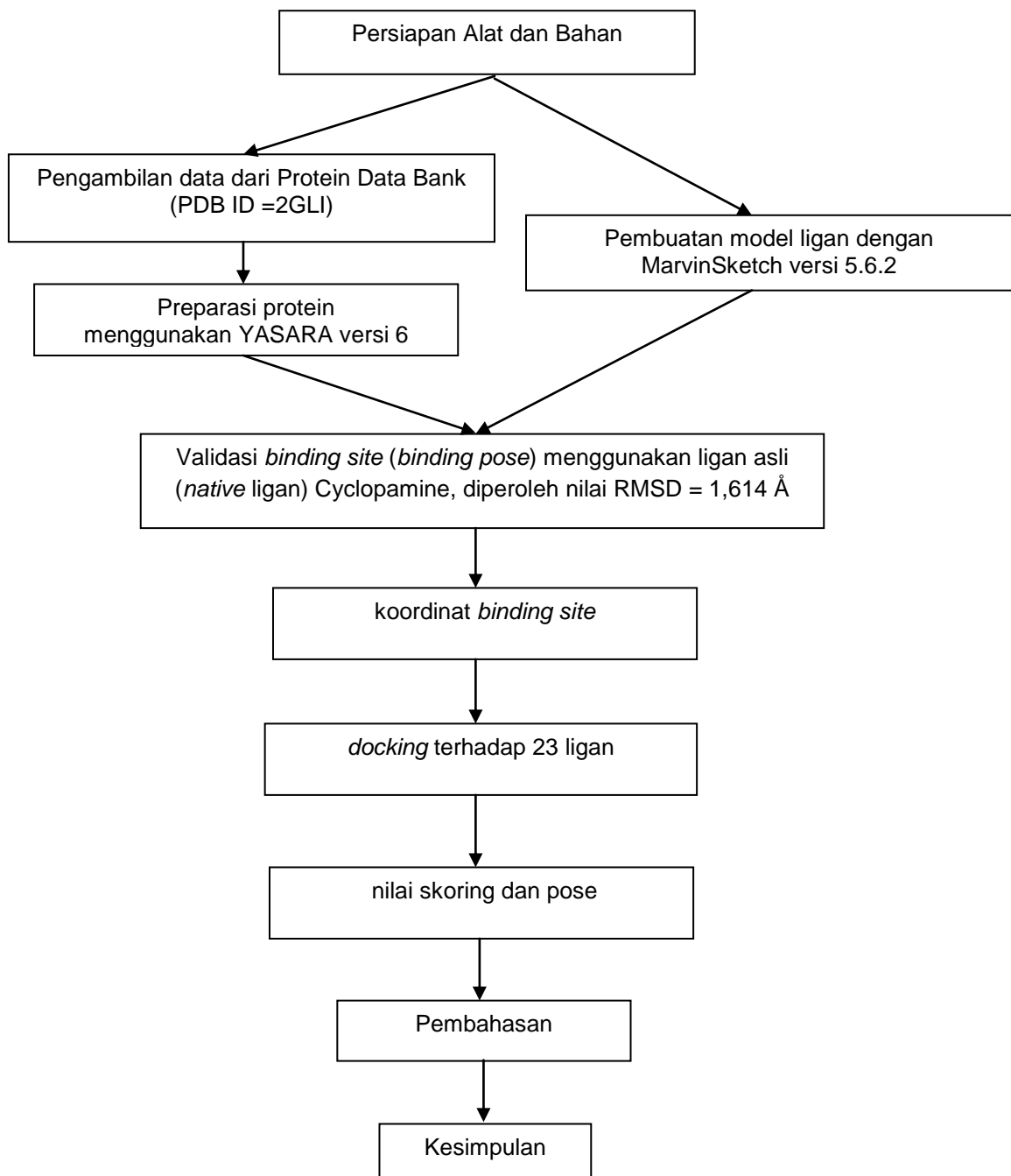
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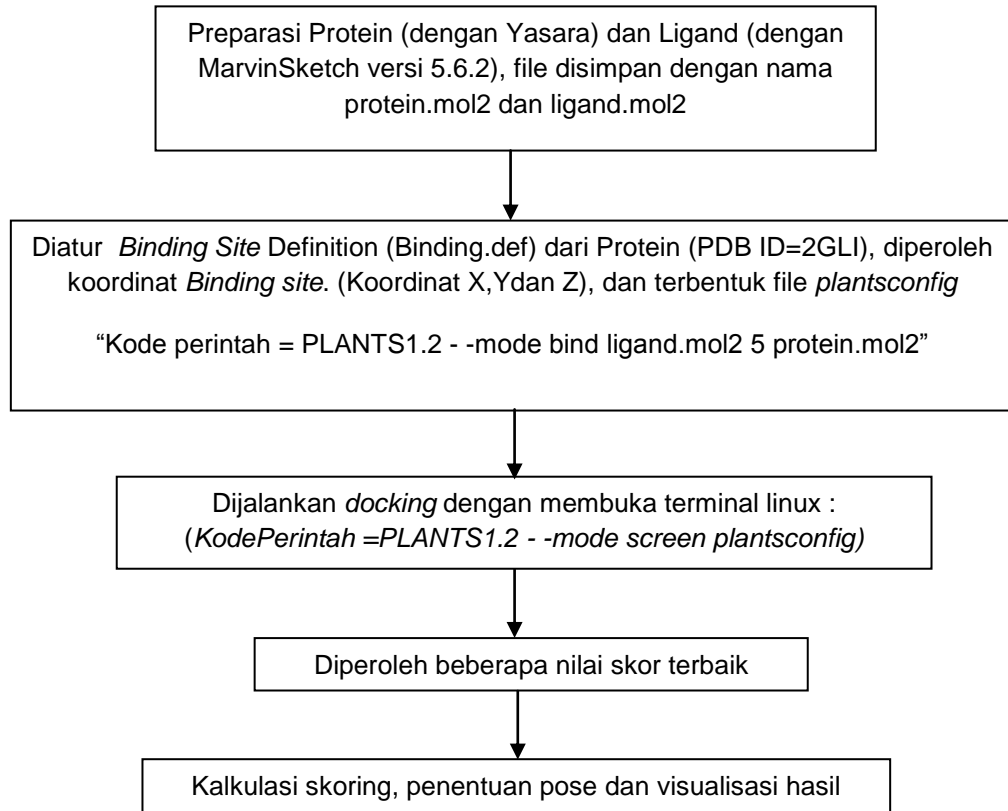
## LAMPIRAN 1

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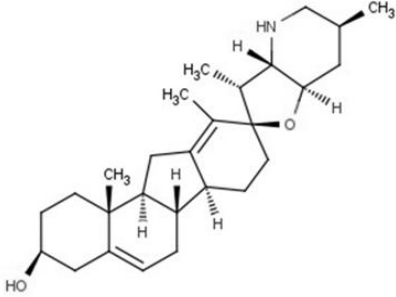
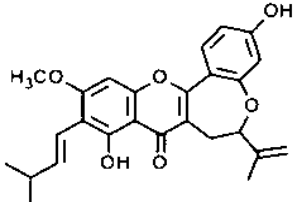
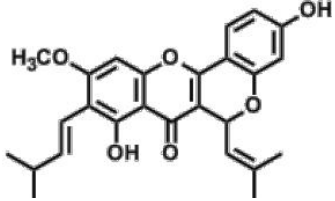
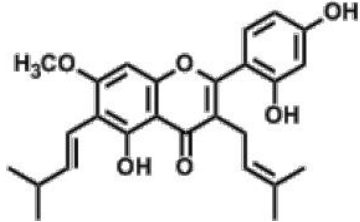


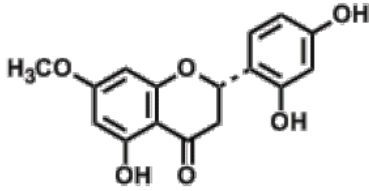
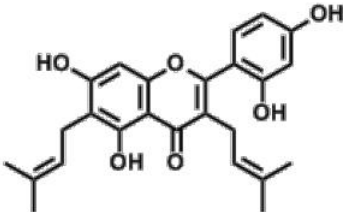
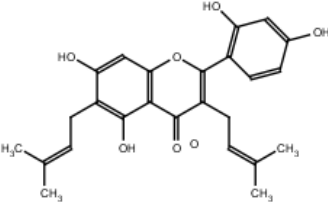
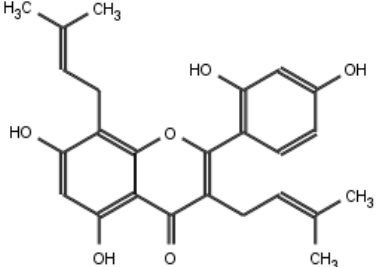
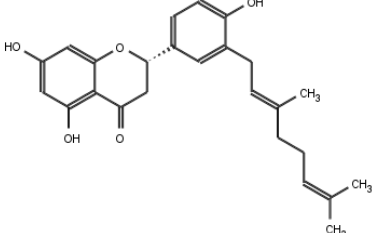
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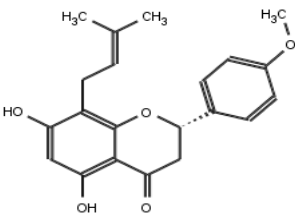
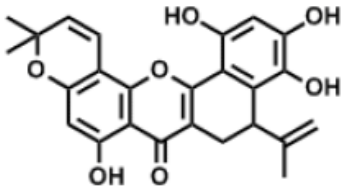
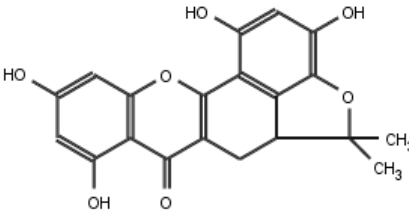
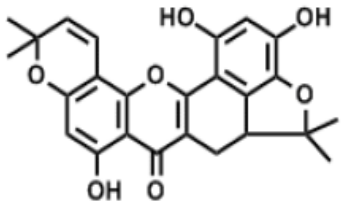
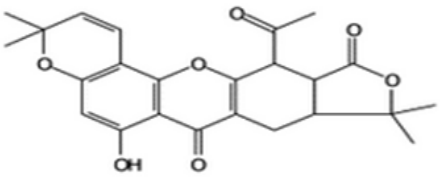
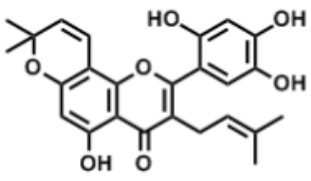


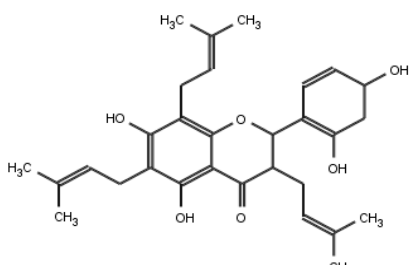
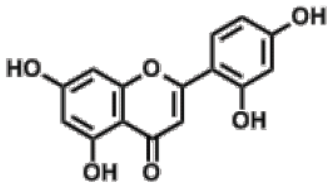
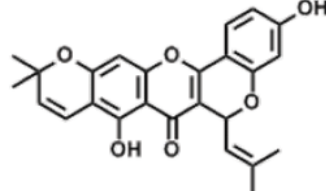
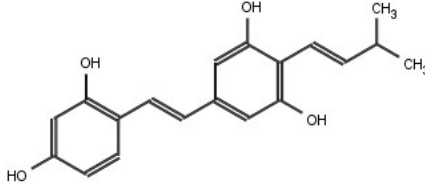
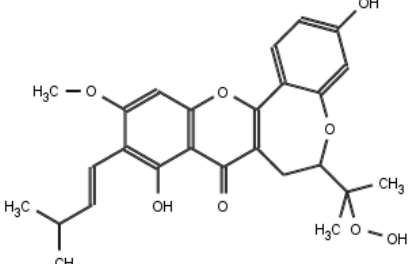
**LAMPIRAN 3**  
**DAFTAR STRUKTUR SENYAWA**

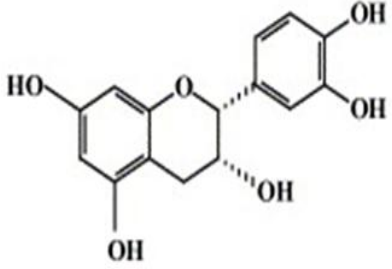
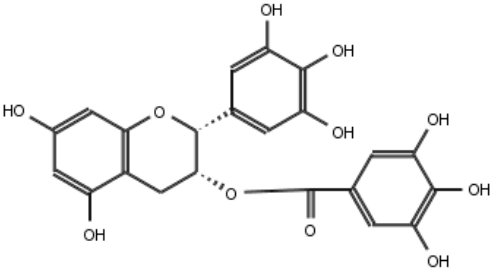
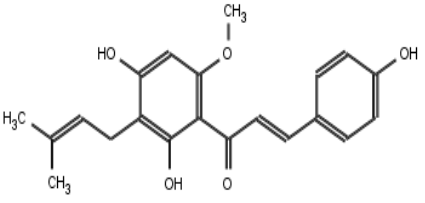
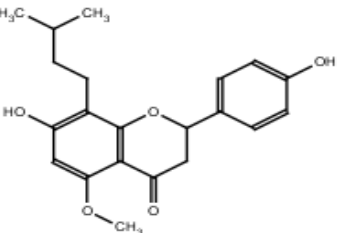
1	Cyclopamine (Senyawa Pemandang)	
2.	Artoindonesianin E-1 (18)	
3.	Cycloartocarpin (18)	
4.	Artocarpin (19)	

5.	Artocarpanone (19)	
6.	Cudraflavone C (19)	
7.	Norartocarpin (19)	
8.	Kuwanon C (19)	
9.	3'-geranylnaringenin (20)	



10.	8-prenyl-4'-O-methyl-naringenin (20)	
11.	Artobiloxanthone (21)	
12.	Artoindonesianin P (21)	
13.	Cycloartobiloxanthone (21)	
14.	Artonol B (21)	
15.	Artonin E (22)	

16.	Artelastisin (23)	
17.	Norartocarpetin (23)	
18.	Isocyclomorusin (24)	
19.	Artoindonesianin F (24)	
20.	Artoindonesianin B (24)	

21.	Epicatechin (25)	
22.	Epigallocatechin-3-gallate (25)	
23.	Xanthohumol (26)	
24.	Isoxanthohumol (26)	

**LAMPIRAN 4**  
**TABEL HASIL PENGAMATAN**

Tabel 2. Senyawa-senyawa golongan flavonoid terpenilasi yang didocking pada GLI1 dengan lingkungan tidak berair

No.	Nama senyawa	Asam amino	Panjang Ikatan Hidrogen (Å)	Energi Ikatan (Kkal/mol)	Skor PLANTS® CHEMPLP
1	3'-geranylnaringenin	Glu 175	3,08	-2,00	-84,86
		Glu 175	2,98	-2,00	
		Thr 173	3,03	-2,00	
2	8-prenyl-4'-O-methyl-naringenin	Glu 175	2,96	-2,00	-70,25
		Thr 173	2,96	-2,00	
3	Artelastisin	Ser 193	2,89	-2,00	-77,18
4	Artobiloxanthone	Gly 110	2,86	-2,00	-77,40
5	Artoindonesianin B	His 123	2,68	-2,00	-64,66
		His 124	3,30	-0,66	
6	Artoindonesianin E1	Ser 193	2,83	-2,00	-75,66
		Gly 176	3,03	-2,00	
7	Artoindonesianin F	Ser 212	2,93	-2,00	-79,79
		Asn 213	2,84	-2,00	
		Asp 216	3,08	-2,00	
		Asp 216	2,92	-2,00	
8	Artoindonesianin P	Glu 175	2,91	-2,00	-74,17
		Glu 175	3,14	-1,71	
		Thr 173	3,02	-2,00	
		Thr 173	3,03	-2,00	
9	Artocarpanone	His 124	3,07	-2,00	-63,72
		His 124	2,95	-2,00	
		His 123	2,79	-2,00	
		Gln 120	2,81	-2,00	
10	Artocarpin	Gly 176	3,03	-2,00	-68,12
		Ser 193	2,98	-2,00	
11	Artonin E	Ser 215	3,05	-2,00	-69,98
		Asp 216	3,07	-2,00	
		Thr 189	2,59	-1,97	
		His 190	3,03	-2,00	
		Tyr 181	2,75	-2,00	

No.	Nama senyawa	Asam amino	Panjang Ikatan Hidrogen (Å)	Energi Ikatan (Kkal/mol)	Skor PLANTS® CHEMPLP
12	Artonol B	Thr 173	2,89	-2,00	-72,89
		Glu 175	3,05	-2,00	
13	Epicatechin	Glu 136	2,91	-2,00	-71,06
		Val 138	2,58	-1,84	
		Val 138	3,24	-1,06	
		His 129	2,63	-2,00	
		His 140	2,96	-2,00	
		Glu 128	3,00	-2,00	
		Glu 128	3,33	-0,44	
14	Epigallocatechin-3-gallate	His 194	3,07	-2,00	-88,38
		Thr 173	3,08	-2,00	
		Glu 175	2,62	-2,00	
		Glu 175	3,18	-1,46	
		Glu 175	3,04	-2,00	
15	Isocyclomorusin	Pro169	2,92	-2,00	-72,61
16	Isoxanthohumol	His 194	3,08	-2,00	-62,86
17	Cudraflavone C	Thr 173	2,98	-2,00	-73,27
		Glu 175	3,09	-2,00	
18	Kuwanon C	Glu 175	2,82	-2,00	-74,81
		Thr 173	2,77	-2,00	
19	Norartocarpin	Leu 148	3,17	-1,51	-68,42
		Arg 149	3,06	-2,00	
		Arg 149	2,86	-2,00	
20	Norartocarpetin	Lys 209	3,11	-1,93	-71,84
		Ala 210	2,89	-2,00	
		Asn 213	3,04	-2,00	
		Ser 212	2,79	-2,00	
		His 190	3,13	-1,80	
21	Cycloartobiloxanthone	Thr 173	2,96	-2,00	-73,86
		Glu 175	3,09	-2,00	
		Glu 175	3,01	-2,00	
22	Cycloartocarpin	Gly 237	2,80	-2,00	-68,15
		Cys 238	3,06	-2,00	
		Thr 239	3,11	-1,91	

No.	Nama senyawa	Asam amino	Panjang Ikatan Hidrogen (Å)	Energi Ikatan (Kkal/mol)	Skor PLANTS® CHEMPLP
23	Xanthohumol	Thr 224	2,55	-1,69	-73,93
		His 220	2,99	-2,00	

Tabel 3. Senyawa-senyawa golongan flavonoid terprenilasi yang didocking pada GLI1 dengan lingkungan berair

No.	Nama senyawa	Asam amino	Panjang Ikatan Hidrogen (Å)	Energi Ikatan (Kkal/mol)	Skor PLANTS® CHEMPLP
1	3'-geranylnaringenin	Thr 239	2,96	-2,00	-87,35
		Ser 247	2,98	-2,00	
2	8-prenyl-4'-O-methylnaringenin	Glu 175	2,98	-2,00	-71,53
		Thr 173	2,86	-2,00	
3	Artelastisin	Gln118	2,77	-2,00	-82,73
		Gly 166	2,71	-2,00	
		Ser 180	2,57	-1,81	
		Arg 178	2,67	-2,00	
		Arg 178	3,18	-1,44	
4	Artobiloxanthone	Asp 109	2,49	-1,31	-78,52
		Cys 111	3,39	-0,09	
		Glu 128	2,37	-0,47	
		Glu 128	3,03	-2,00	
5	Artoindonesianin B	Thr 224	3,09	-2,00	-78,82
		H2O	2,39	-0,74	
		His 220	2,90	-2,00	
6	Artoindonesianin E1	Val 252	2,88	-2,00	-74,46
		H2O	3,10	-1,48	
7	Artoindonesianin F	Thr 195	2,87	-2,00	-76,04
		Lys 198	2,74	-2,00	
		Lys 198	2,99	-2,00	
8	Artoindonesianin P	Glu 175	2,85	-2,00	-73,04
		Thr 173	3,04	-2,00	
9	Artocarpanone	Glu 175	3,04	-2,00	-62,00
		Glu 175	3,05	-2,00	
		Thr 173	3,04	-2,00	
10	Artocarpin	Arg 149	2,86	-2,00	-67,03
11	Artonin E	Glu 175	3,26	-0,96	-70,38
		Thr 173	2,90	-2,00	
		Thr 173	3,07	-2,00	

No.	Nama senyawa	Asam amino	Panjang Ikatan Hidrogen (Å)	Energi Ikatan (Kkal/mol)	Skor PLANTS® CHEMPLP
12	Artonol B	Arg 178	2,92	-2,00	-70,73
		Arg 178	2,95	-2,00	
		Cys 177	3,39	-0,10	
		Cys 172	3,04	-2,00	
		Cys 172	2,63	-2,00	
13	Epicatechin	Arg 178	2,60	-2,00	-70,97
		Arg 178	2,68	-2,00	
		Glu 175	2,57	-1,79	
		Thr 173	3,06	-2,00	
		Ser 180	2,52	-1,48	
14	Epigallocatechin-3-gallate	H2O	2,99	-2,00	-87,34
		Lys 229	2,68	-2,00	
		Thr 243	2,67	-2,00	
		Thr 243	2,98	-1,46	
		Thr 243	2,74	-2,00	
		Ser 247	3,08	-2,00	
		Ser 247	3,08	-2,00	
		Arg 241	2,96	-2,00	
		Thr 239	2,59	-1,96	
15	Isocyclomorusin	Thr 173	3,01	-2,00	-75,51
		Glu 175	3,20	-1,32	
		Glu 175	2,83	-2,00	
16	Isoxanthohumol	Thr 173	2,79	-2,00	-68,31
		Glu 175	2,89	-2,00	
17	Cudraflavone C	Arg 192	3,19	-1,40	-74,56
		Arg 192	3,28	-0,79	
18	Kuwanon C	Glu 175	3,05	-2,00	-80,49
		Glu 175	3,07	-2,00	
19	Norartocarpin	Glu 197	2,72	-2,00	-75,59
		Lys 198	3,19	-1,41	
20	Norartocarpetin	His 256	2,74	-2,00	-69,62
		His 256	3,32	-0,56	



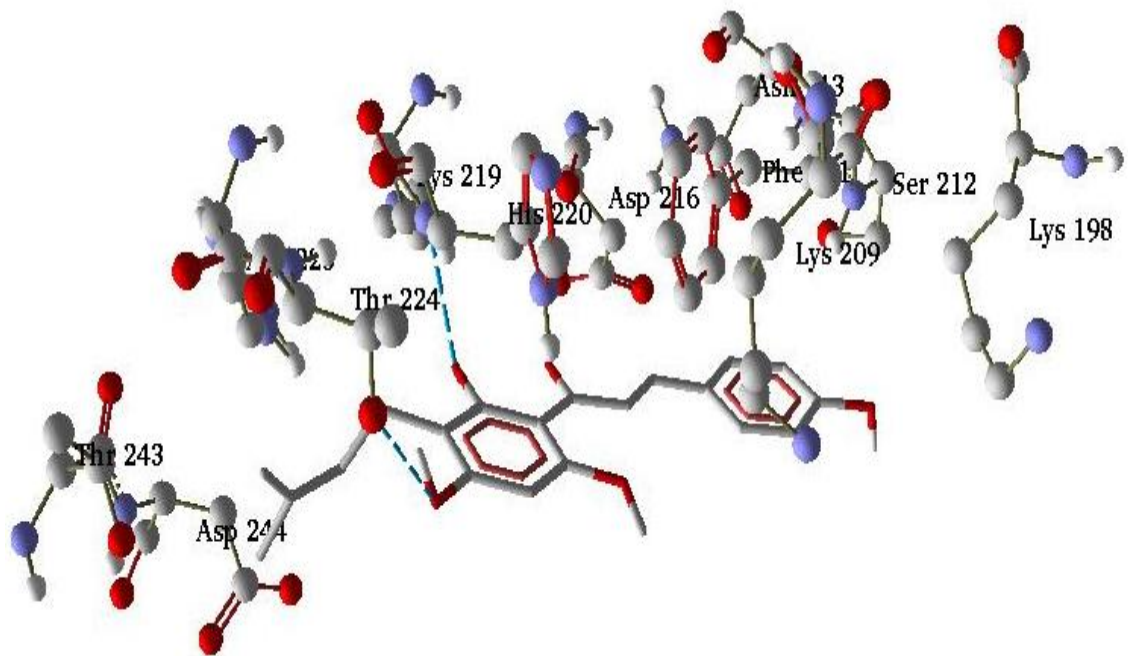
No.	Nama senyawa	Asam amino	Panjang Ikatan Hidrogen (Å)	Energi Ikatan (Kkal/mol)	Skor PLANTS® CHEMPLP
21	Cycloartobiloxanthone	Gly 110	2,96	-2,00	-74,16
		Asp 109	2,95	-2,00	
		Asp 109	3,33	-0,49	
22	Cycloartocarpin	Gly 176	2,95	-2,00	-69,41
		His 194	3,33	-0,49	
		Ser 193	3,00	-2,00	
23	Xanthohumol	Glu 136	2,66	-2,00	-69,41
		Val 138	2,82	-2,00	
		Cys 111	3,31	-0,62	

Tabel 4. Daftar senyawa golongan Flavonoid terprenilasi (terbaik) dan senyawa pembandingan

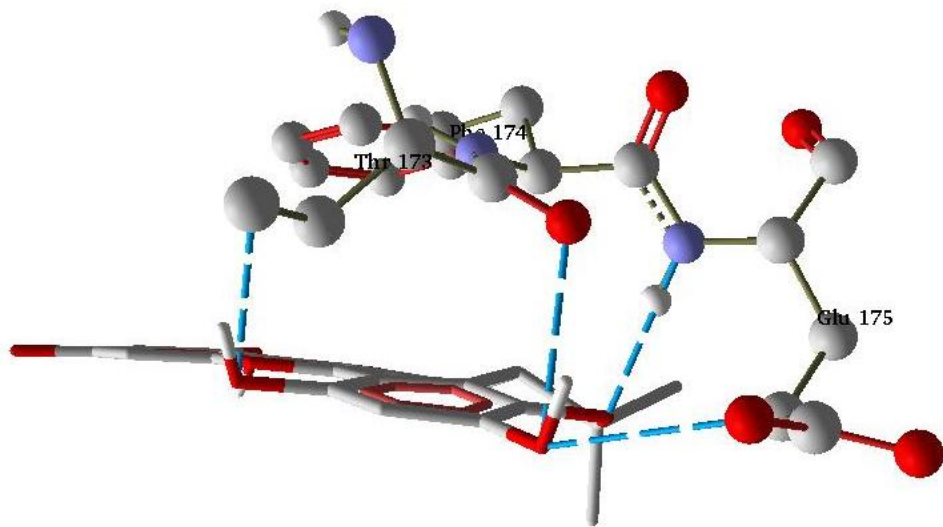
No.	Nama senyawa	Asam amino	Panjang Ikatan Hidrogen (Å)	Energi Ikatan (Kkal/mol)	Skor PLANTS® CHEMPLP
1.	Cyclopamine	His 129	3,05	-2,00	-73,27
2.	Xanthohumol	Thr 224	2,55	-1,69	-73,93
		His 220	2,99	-2,00	
3.	Artoindonesianin P	Glu 175	2,91	-2,00	-74,17
		Glu 175	3,14	-1,71	
		Thr 173	3,02	-2,00	
		Thr 173	3,03	-2,00	
4.	Artonol B	Thr 173	2,89	-2,00	-72,89
		Glu 175	3,05	-2,00	
5.	Isocyclomorusin	Pro169	2,92	-2,00	-72,61
6.	Cudraflavone C	Thr 173	2,98	-2,00	-73,27
		Glu 175	3,09	-2,00	
7.	Norartocarpetin	Lys 209	3,11	-1,93	-71,84
		Ala 210	2,89	-2,00	
		Asn 213	3,04	-2,00	
		Ser 212	2,79	-2,00	
		His 190	3,13	-1,80	
8.	Cycloartobiloxanthone	Thr 173	2,96	-2,00	-73,86
		Glu 175	3,09	-2,00	
		Glu 175	3,01	-2,00	
9.	Kuwanon C	Glu 175	2,82	-2,00	-74,81
		Thr 173	2,77	-2,00	

## Lampiran 5

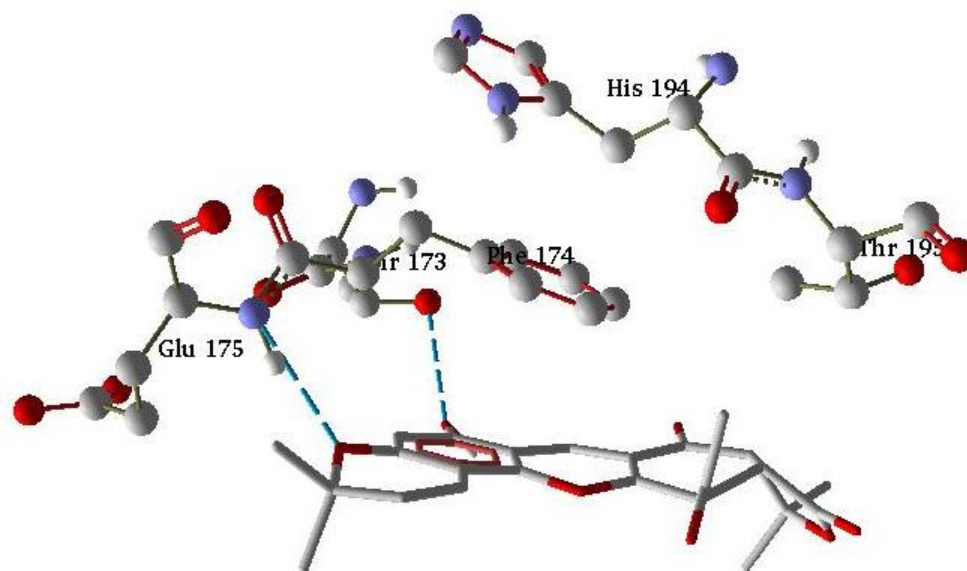
### Interaksi Senyawa Uji dengan GLI1 (2GLI) dalam lingkungan tidak berair



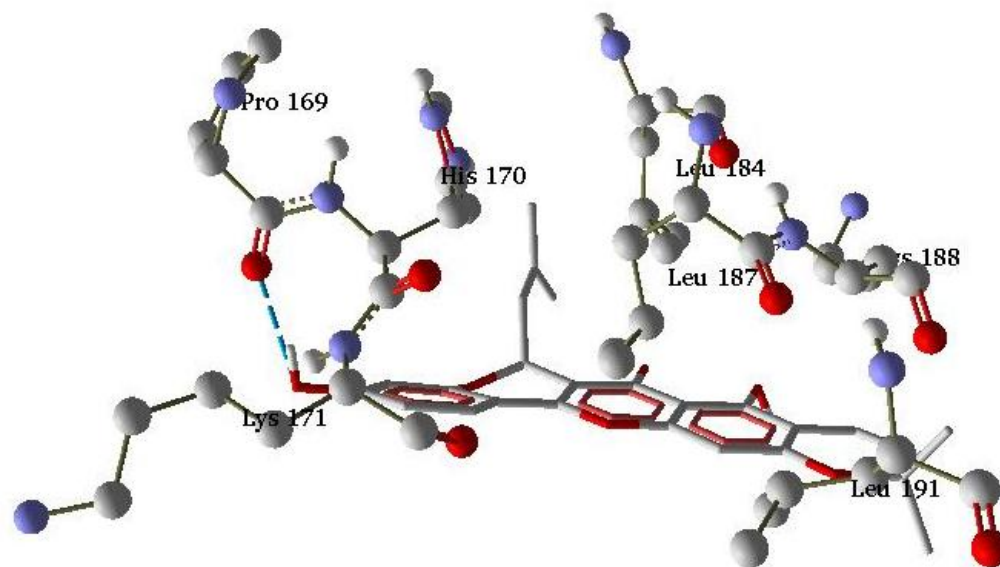
Gambar 9. Interaksi Xanthohumol dengan GLI1 (2GLI)



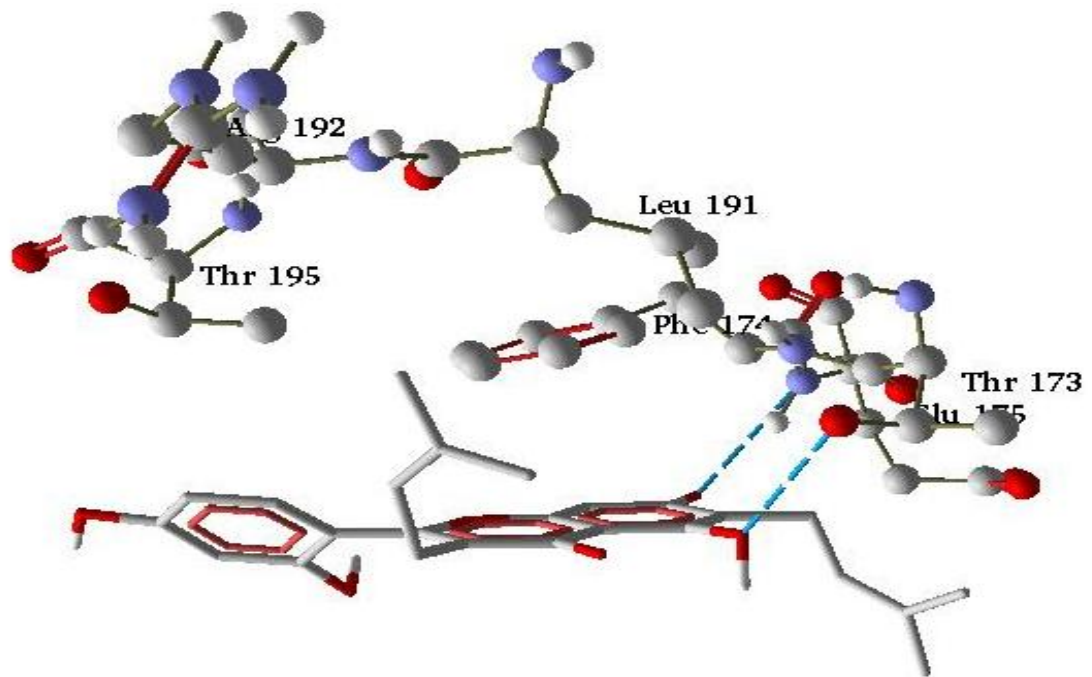
Gambar 10. Interaksi Artoindonesianin P dengan GLI1 (2GLI)



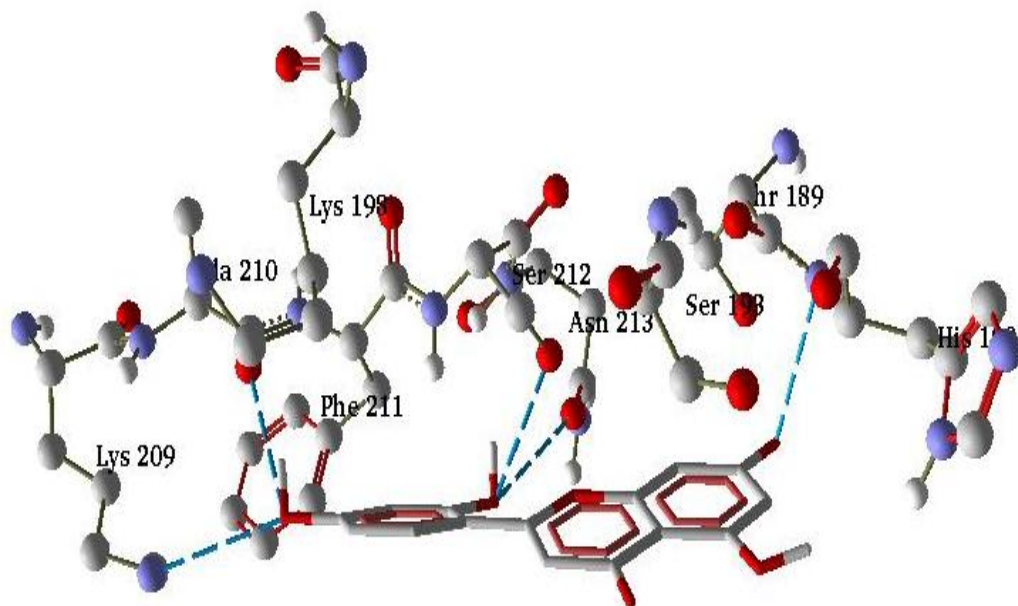
Gambar 11. Interaksi Artonol B dengan GLI1 (2GLI)



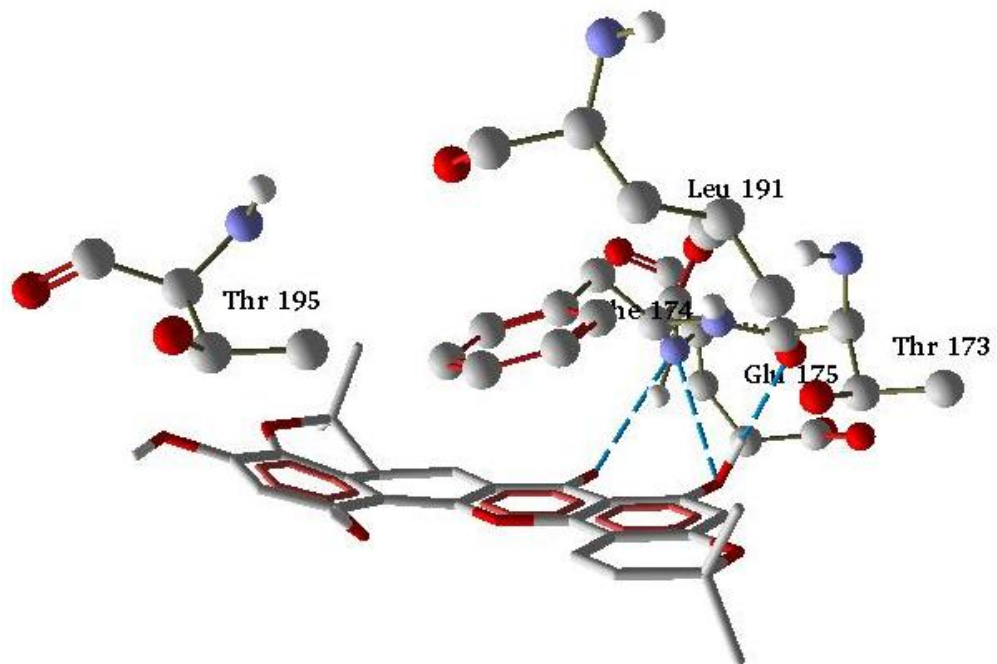
Gambar 12. Interaksi Isocyclomorusin dengan GLI1 (2GLI)



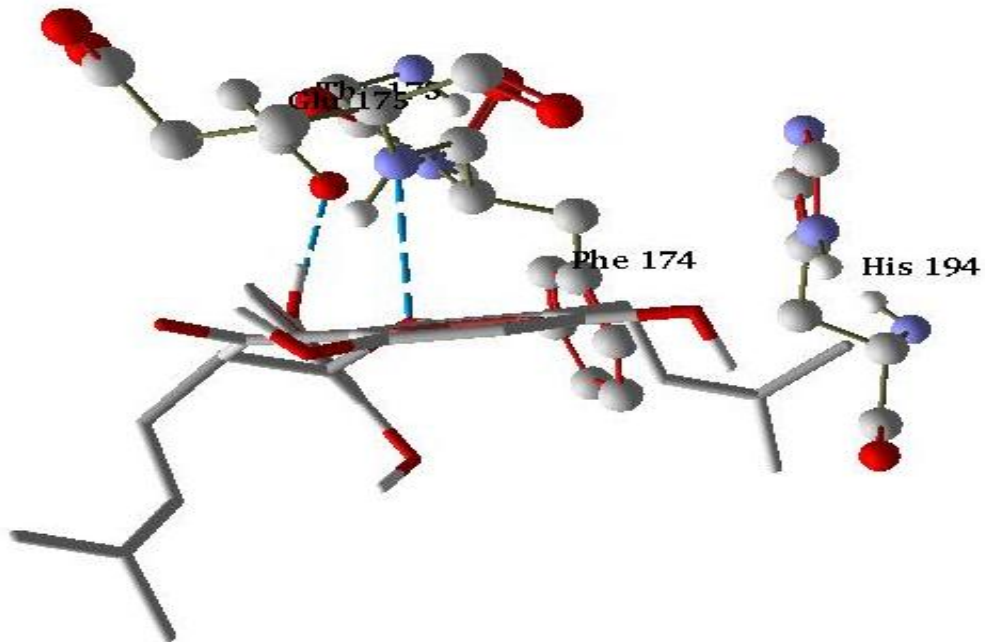
Gambar 13. Interaksi Cudraflavone C dengan GLI1 (2GLI)



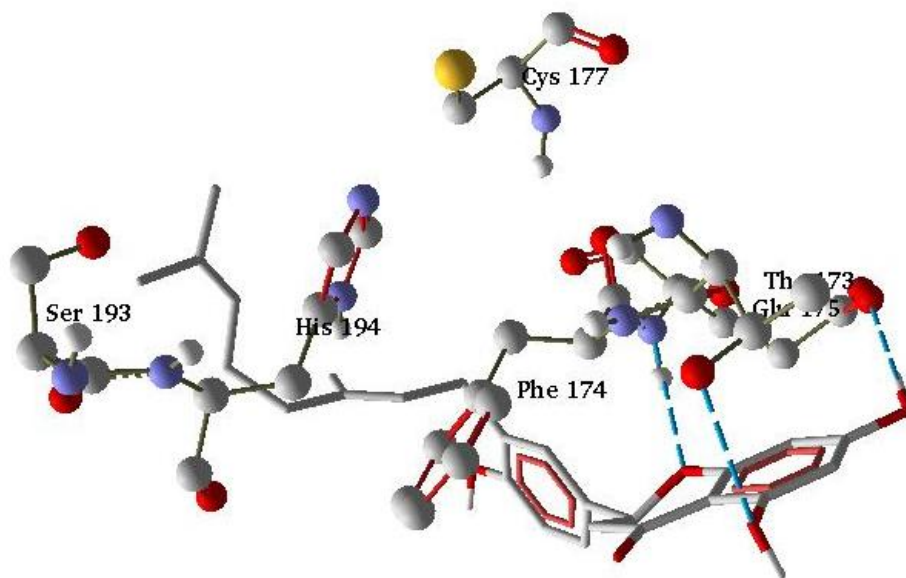
Gambar 14. Interaksi Norartocarpetin dengan GLI1 (2GLI)



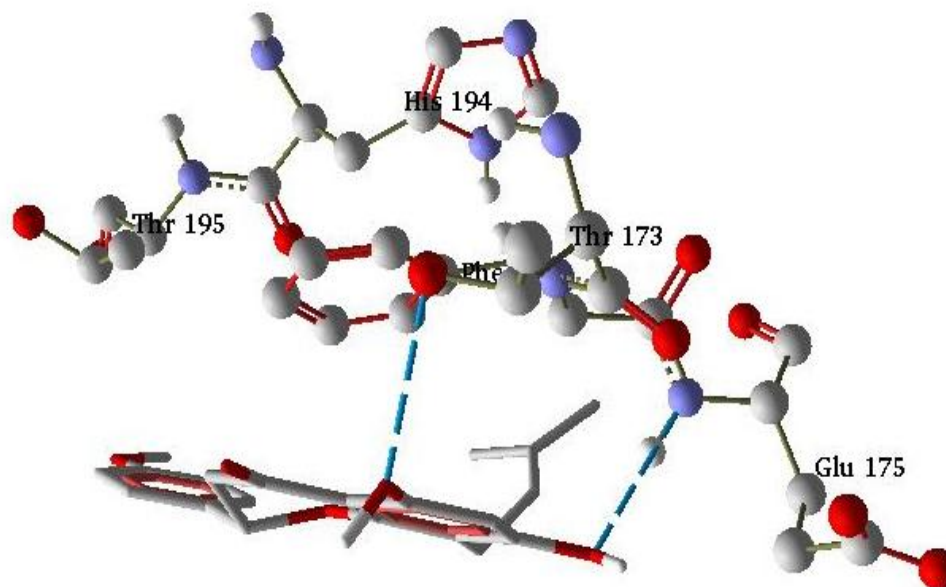
Gambar 15. Interaksi Cycloartobioxanthone dengan GLI1 (2GLI)



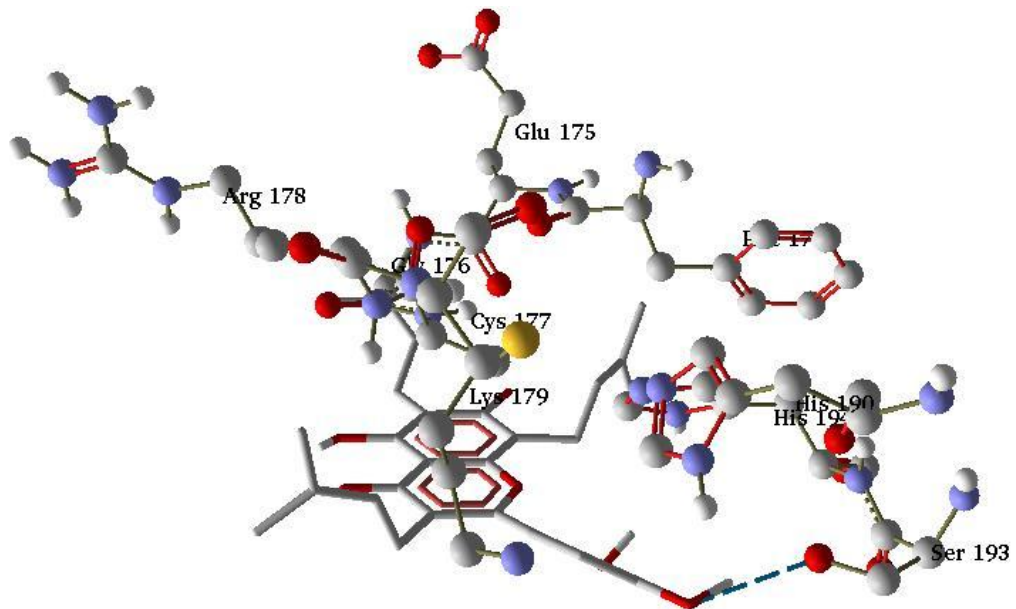
Gambar 16. Interaksi Kuwanon C dengan GLI1 (2GLI)



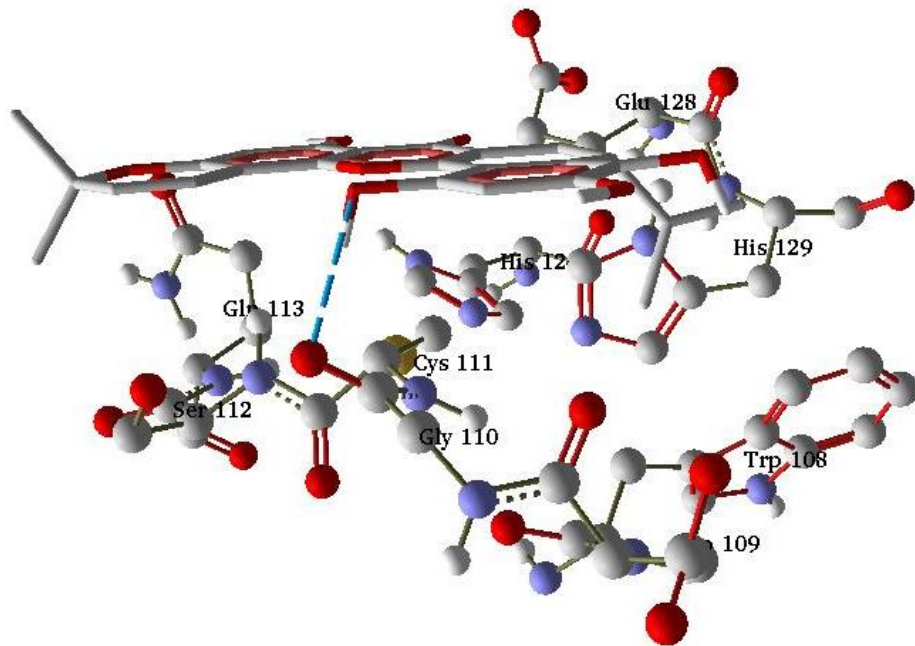
Gambar 17. Interaksi 3'-geranylnaringenin dengan GLI1 (2GLI)



Gambar 18. Interaksi 8-prenyl-4'-O-methyl naringenin dengan GLI1 (2GLI)

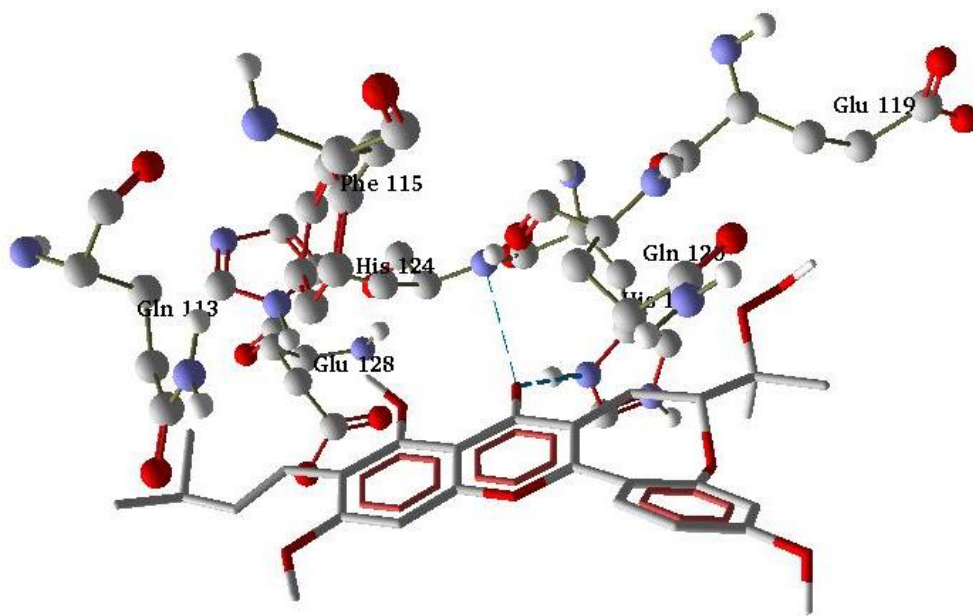


Gambar 19. Interaksi artelastisin dengan GLI1 (2GLI)

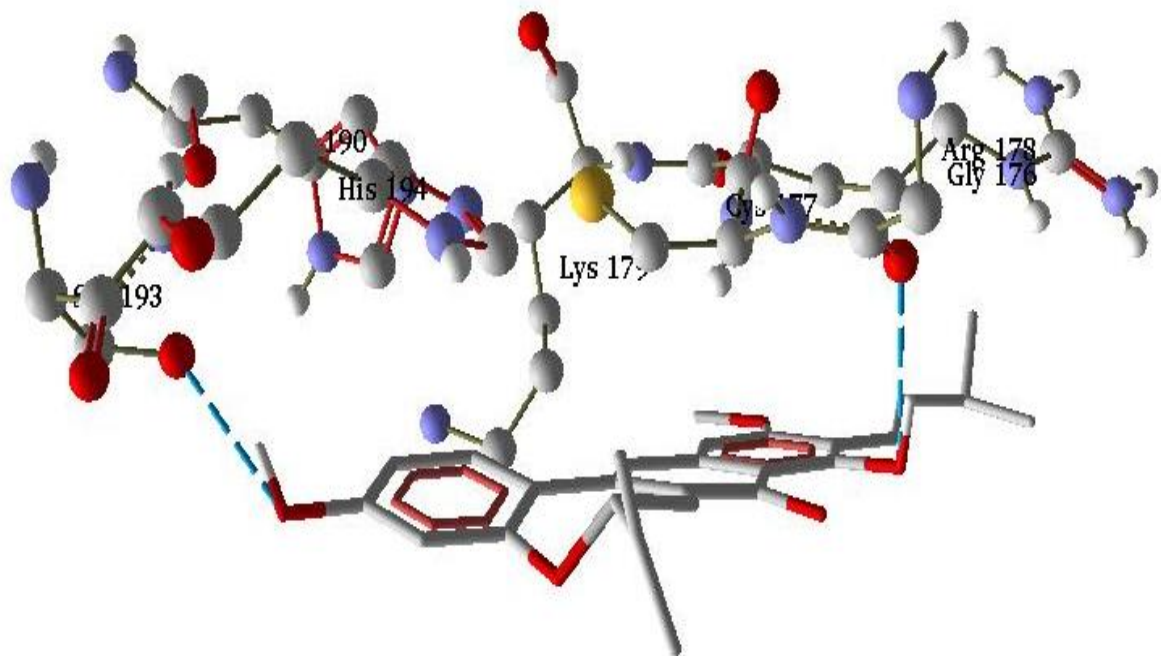


Gambar 20. Interaksi Artobiloxanthone dengan GLI1 (2GLI)

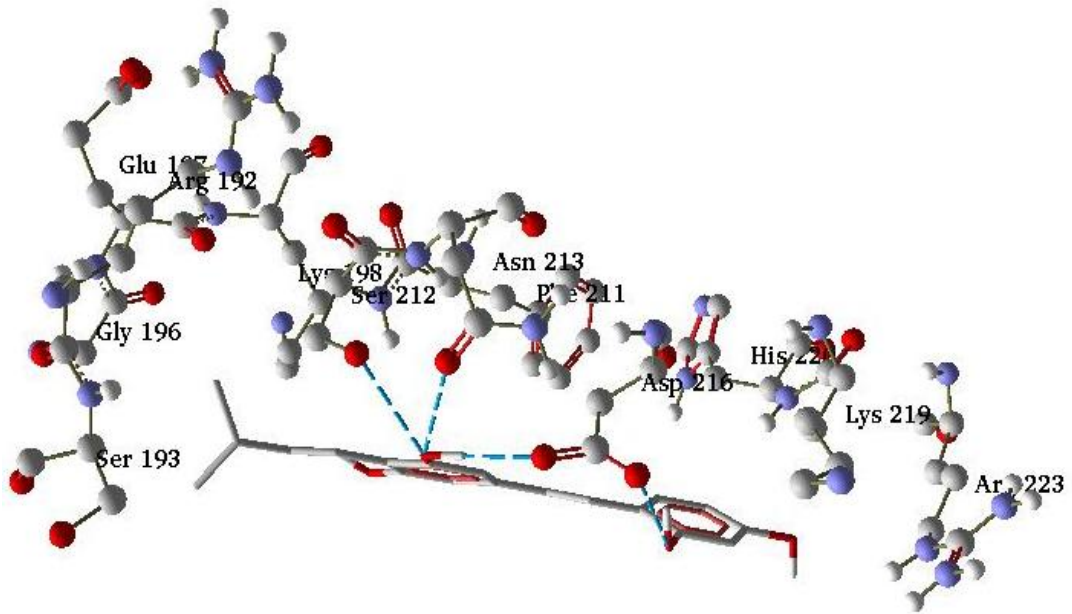




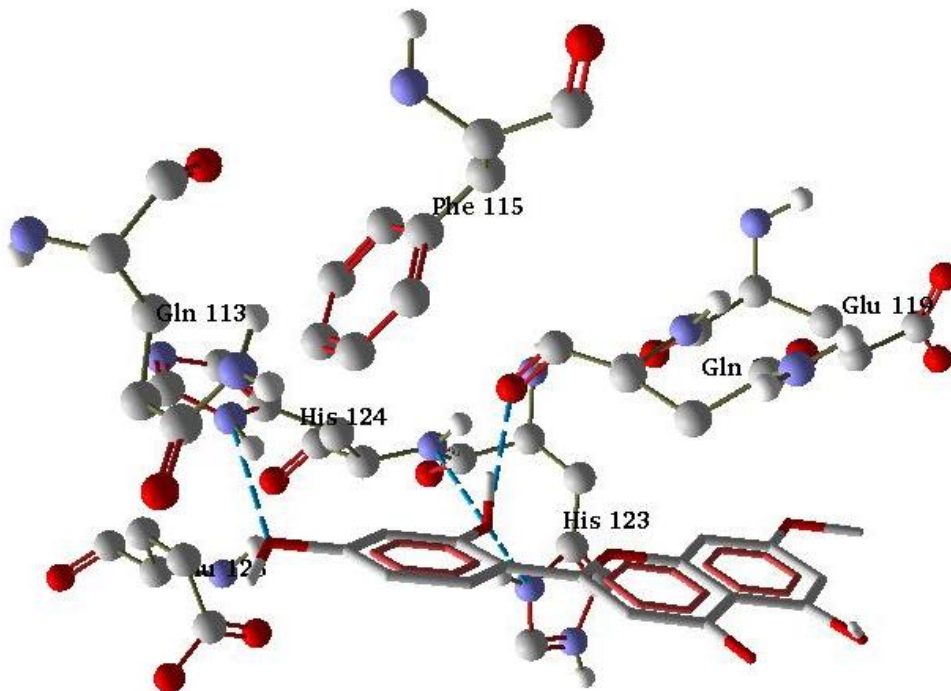
Gambar 21. Interaksi Artoindonesianin B dengan GLI1 (2GLI)



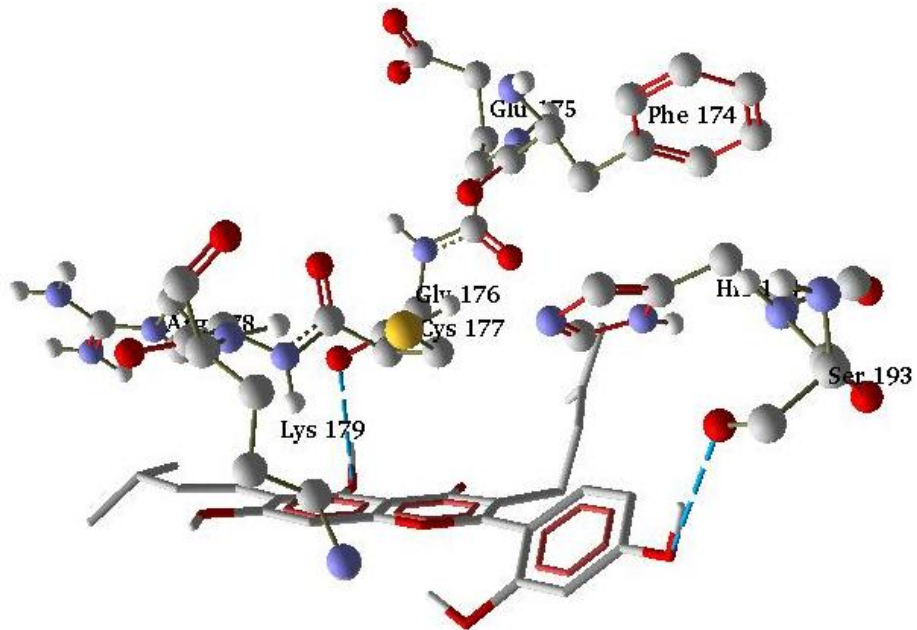
Gambar 22. Interaksi Artoindonesianin E1 dengan GLI1 (2GLI)



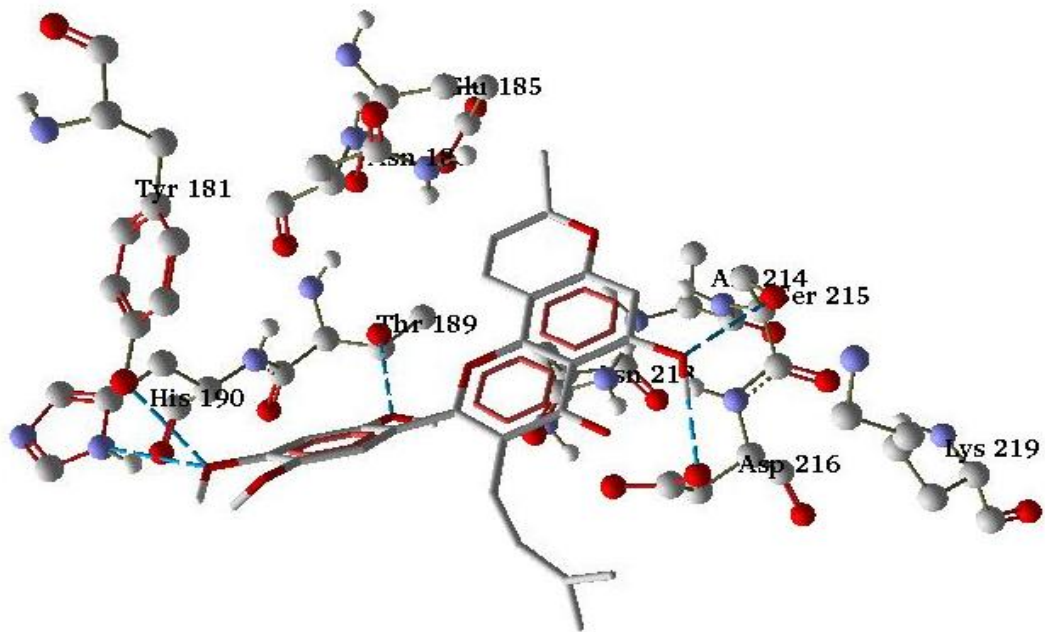
Gambar 23. Interaksi Artoindonesianin F dengan GLI1 (2GLI)



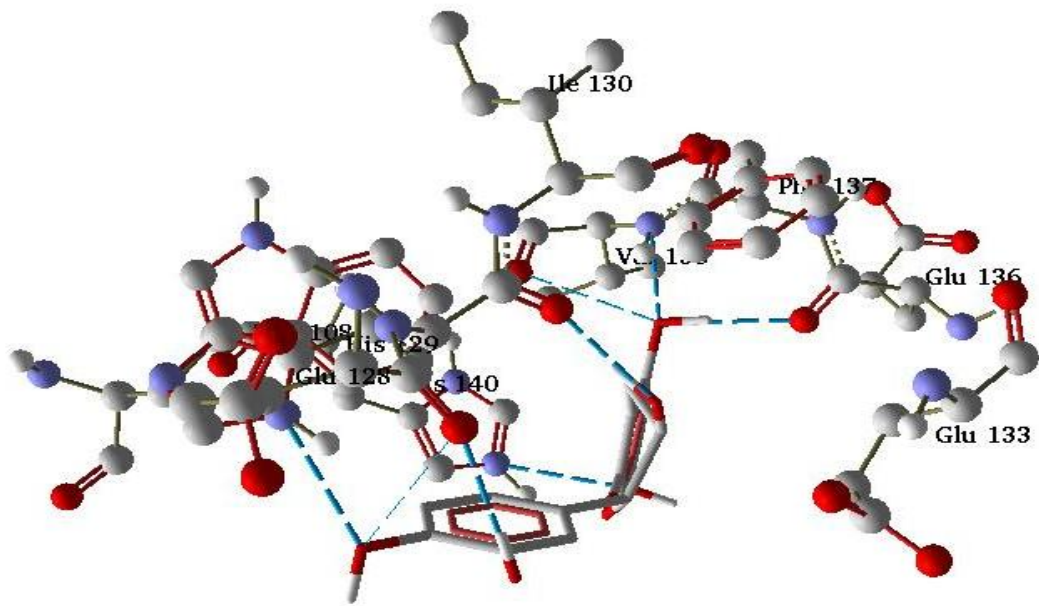
Gambar 24. Interaksi Artocarpanone dengan GLI1 (2GLI)



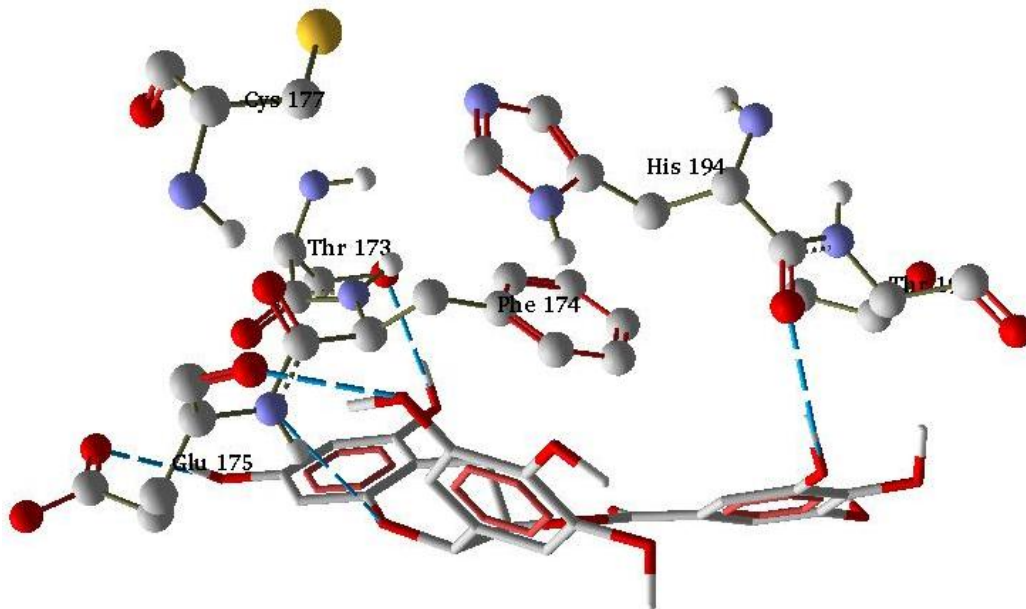
Gambar 25. Interaksi Artocarpin dengan GLI1 (2GLI)



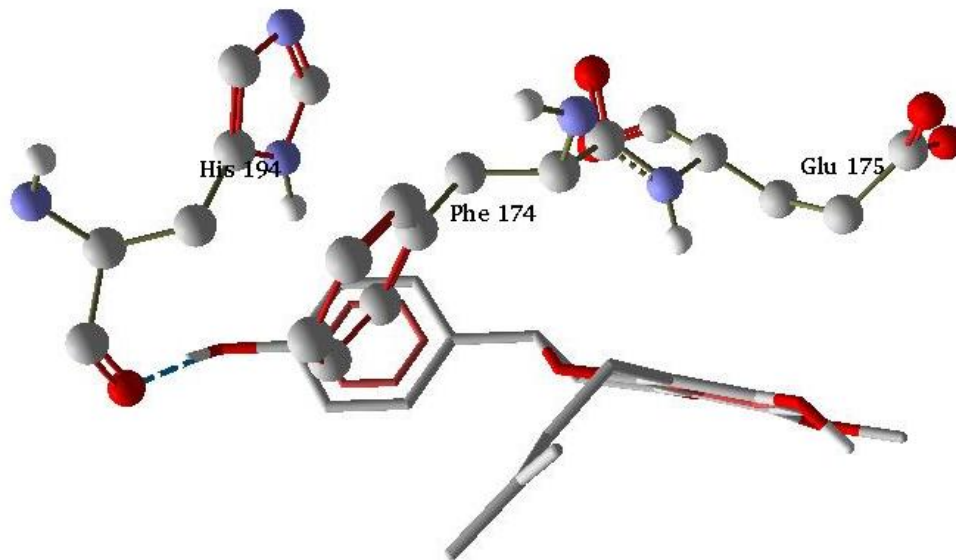
Gambar 26. Interaksi Artonin E dengan GLI1 (2GLI)



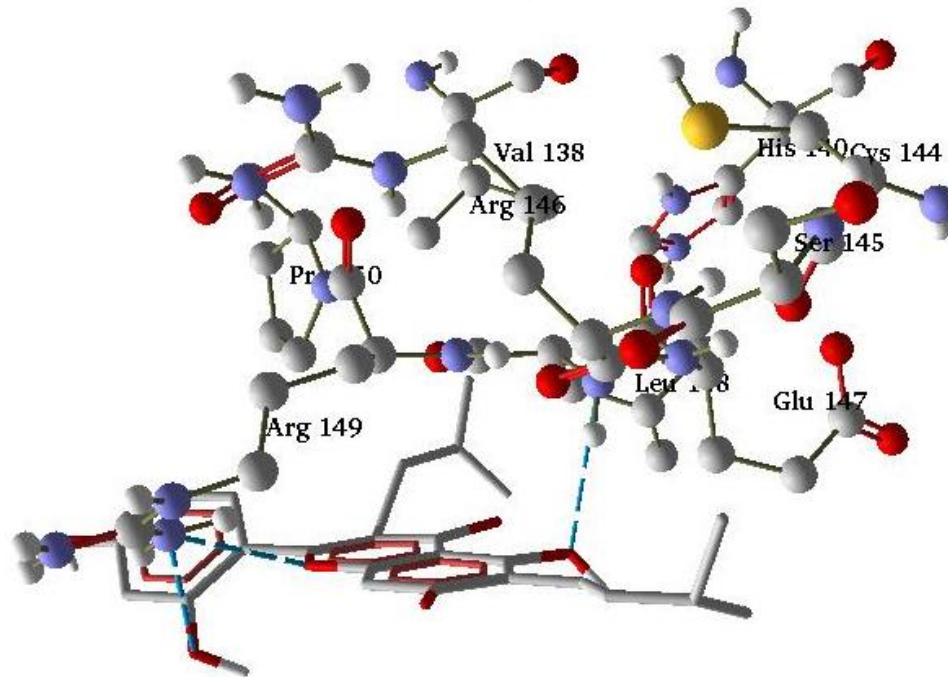
Gambar 27. Interaksi Epicatechin dengan GLI1 (2GLI)



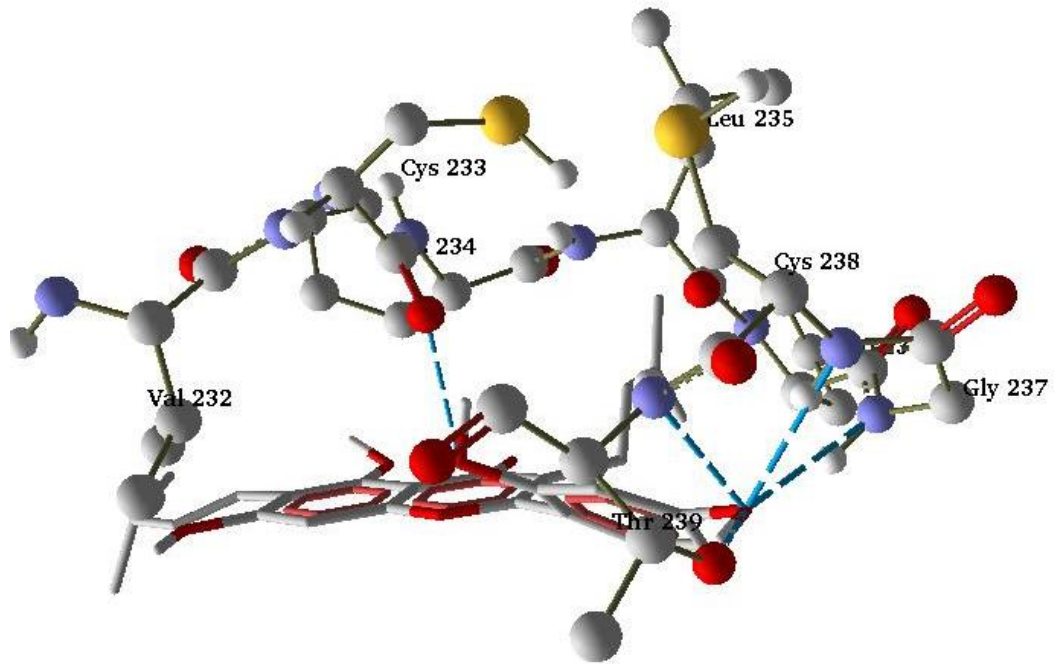
Gambar 28. Interaksi Epigallocatechin-3-gallate dengan GLI1 (2GLI)



Gambar 29. Interaksi Isoxanthohumol dengan GLI1 (2GLI)







Gambar 30. Interaksi Norartocarpin dengan GLI1 (2GLI)



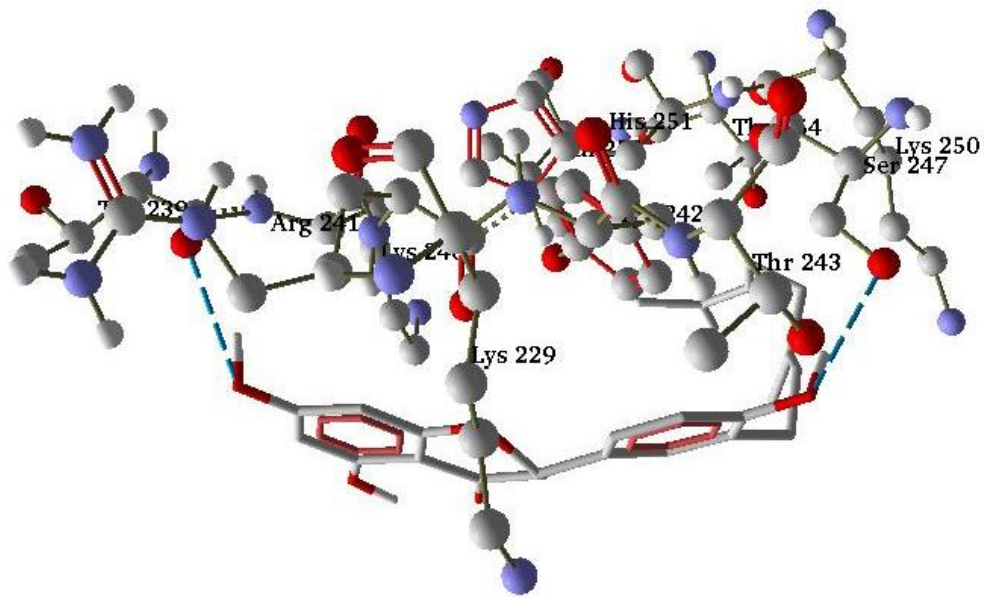
Gambar 31. Interaksi Cycloartocarpin dengan GLI1 (2GLI)

Keterangan:

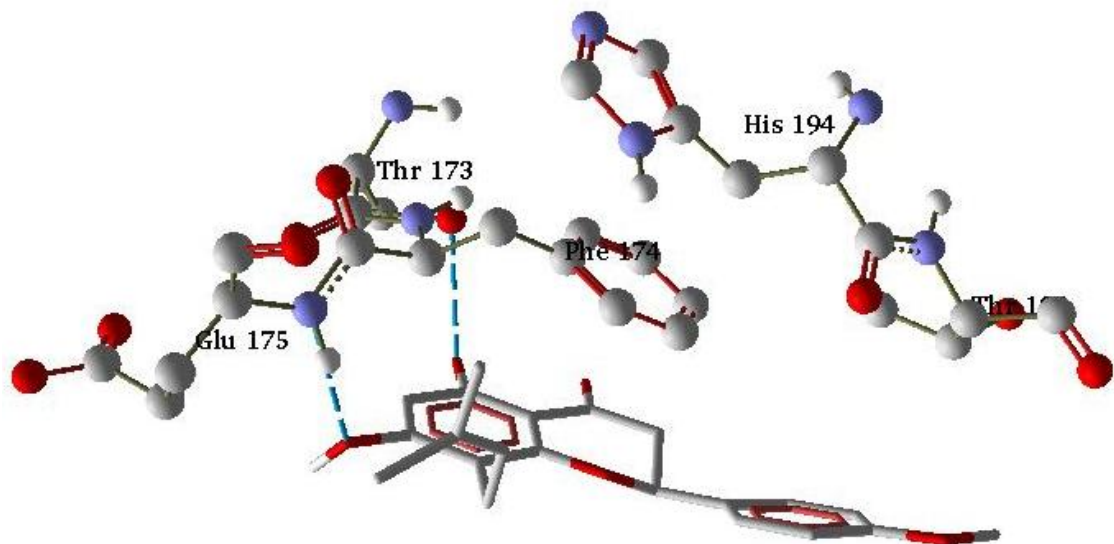
-  = Oksigen
-  = Nitrogen
-  = Karbon
-  = Sulfur

## Lampiran 6

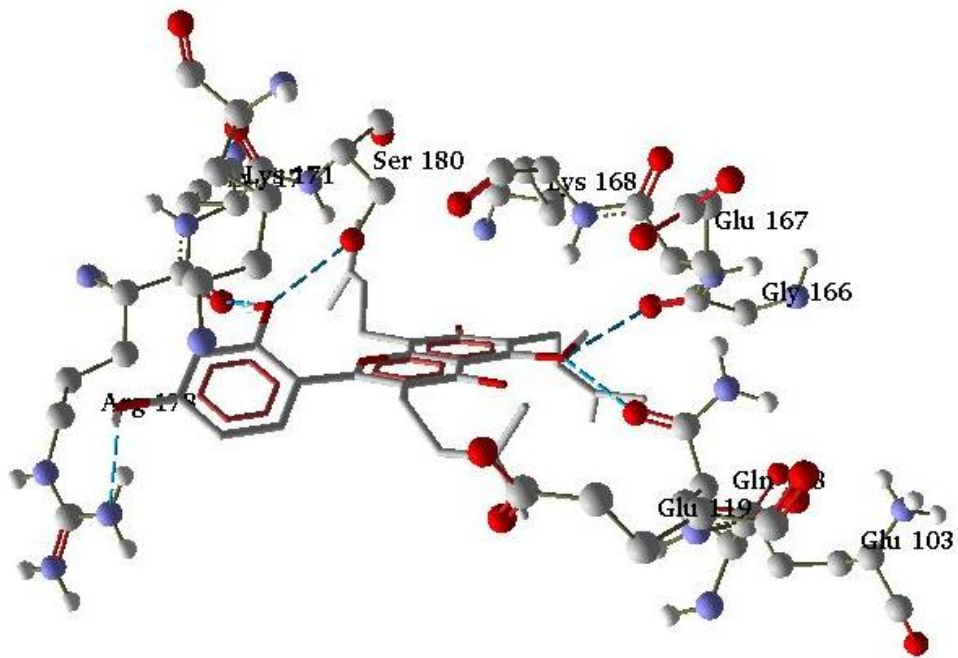
### Interaksi Senyawa Uji dengan GLI1 (2GLI) dalam lingkungan berair



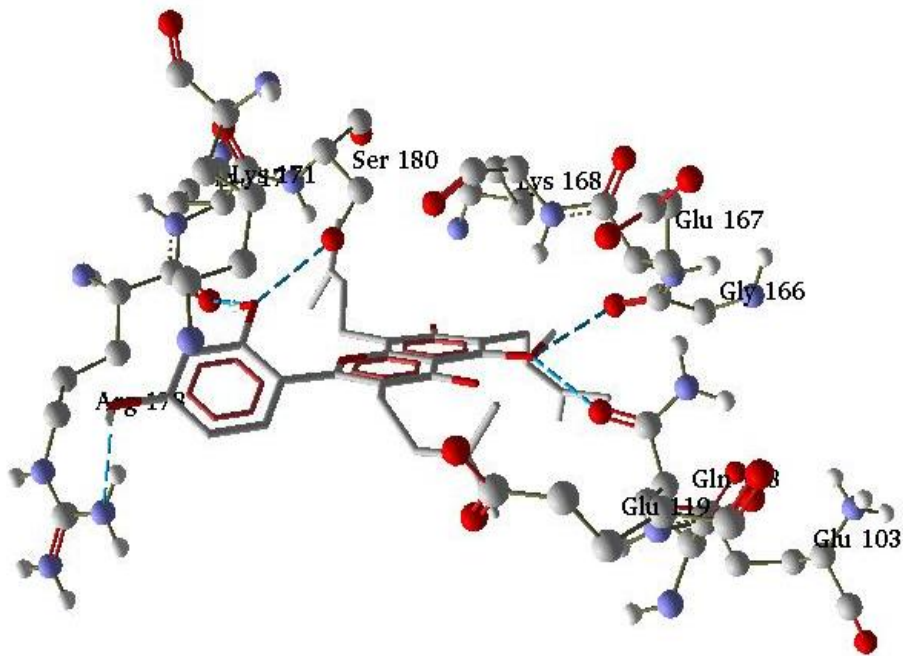
Gambar 32. Interaksi 3'-geranylnaringenin dengan GLI1 (2GLI)



Gambar 33. Interaksi 8-prenyl-4'-O-methyl naringenin dengan GLI1 (2GLI)

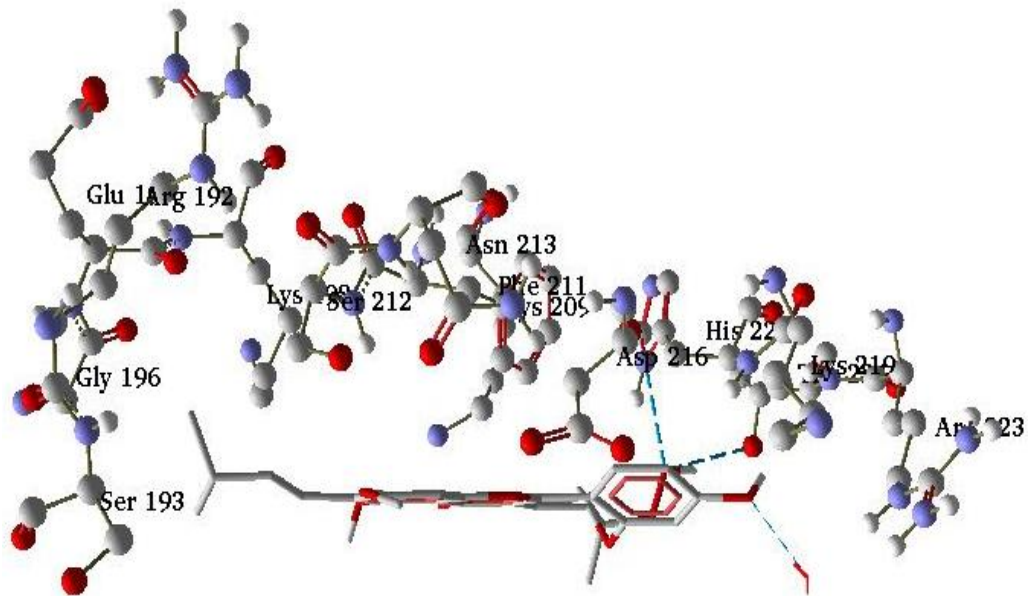


Gambar 34. Interaksi artelastisin dengan GLI1 (2GLI)

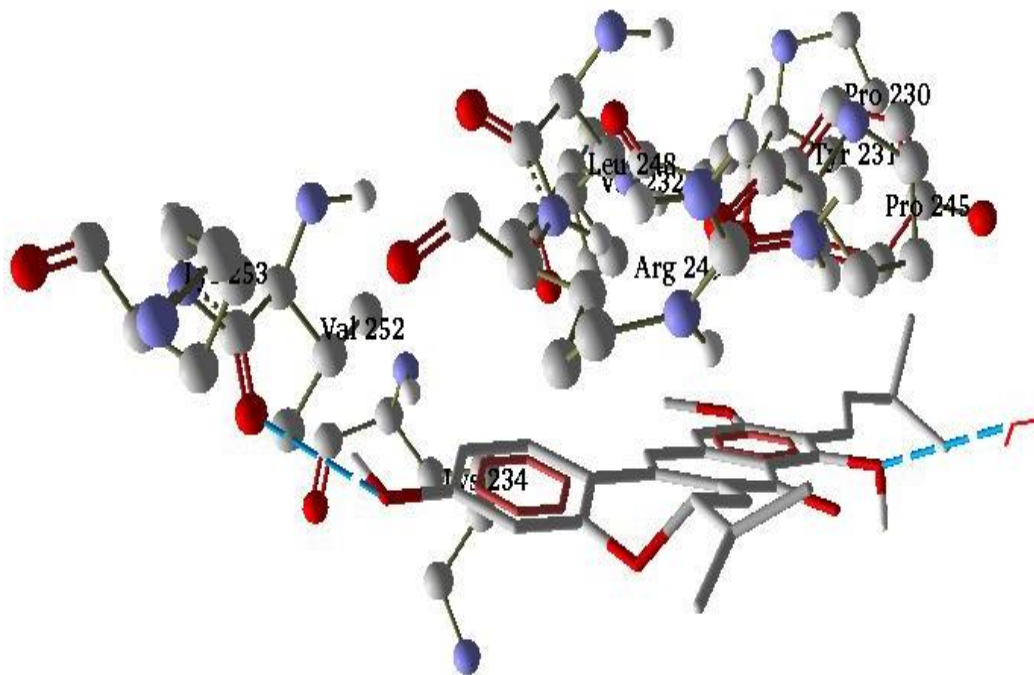


Gambar 35. Interaksi ArtobiloXanthone dengan GLI1 (2GLI)

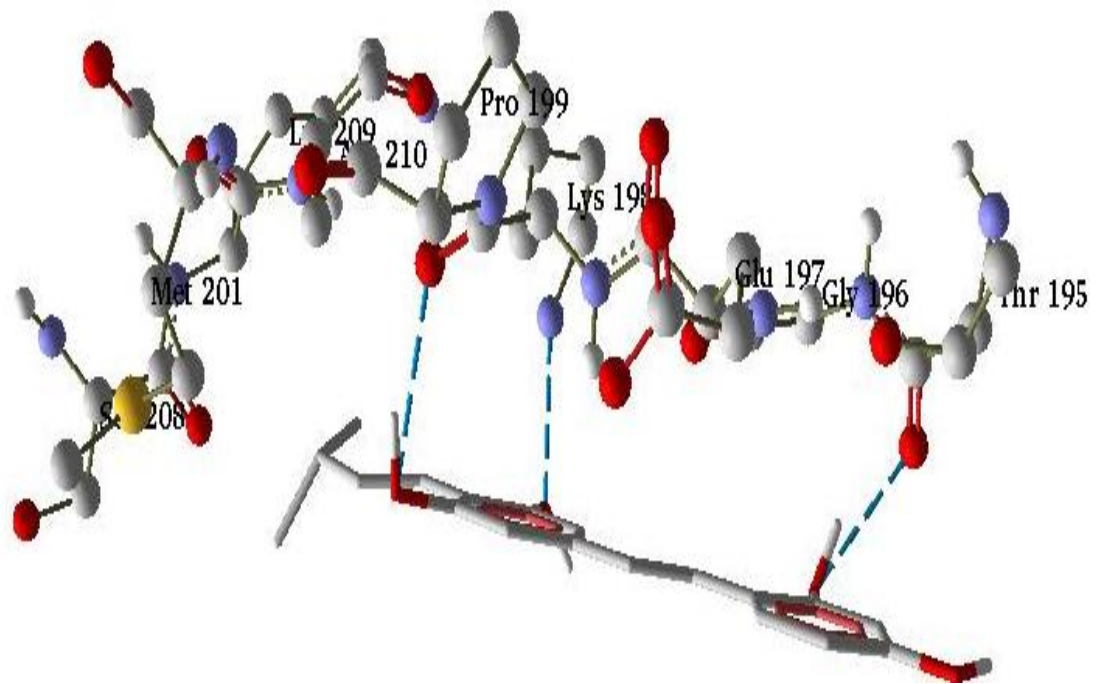




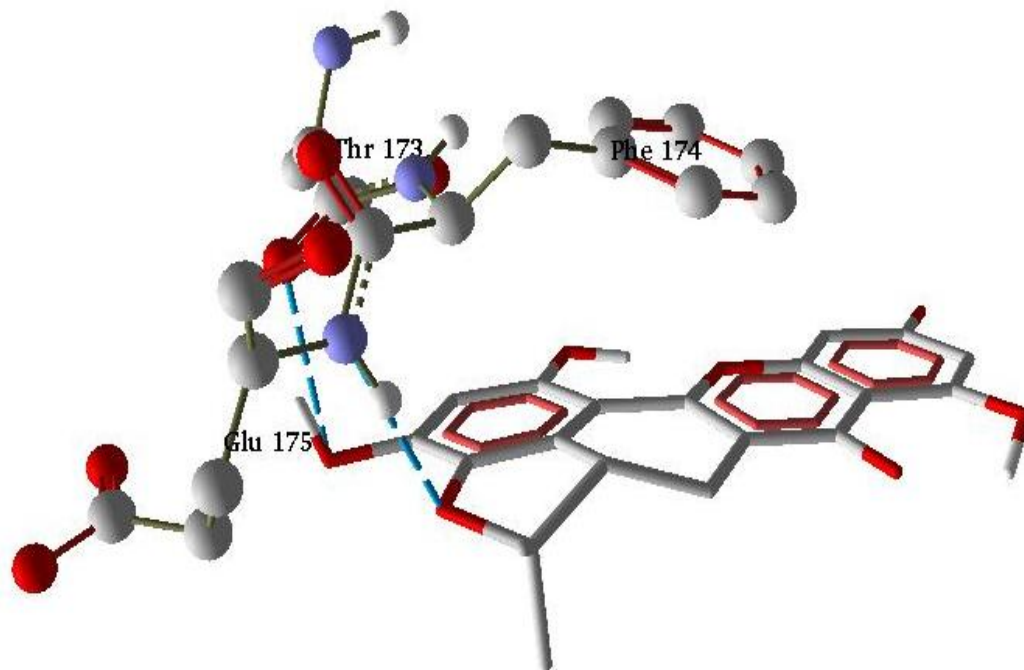
Gambar 36. Interaksi Artoindonesianin B dengan GLI1 (2GLI)



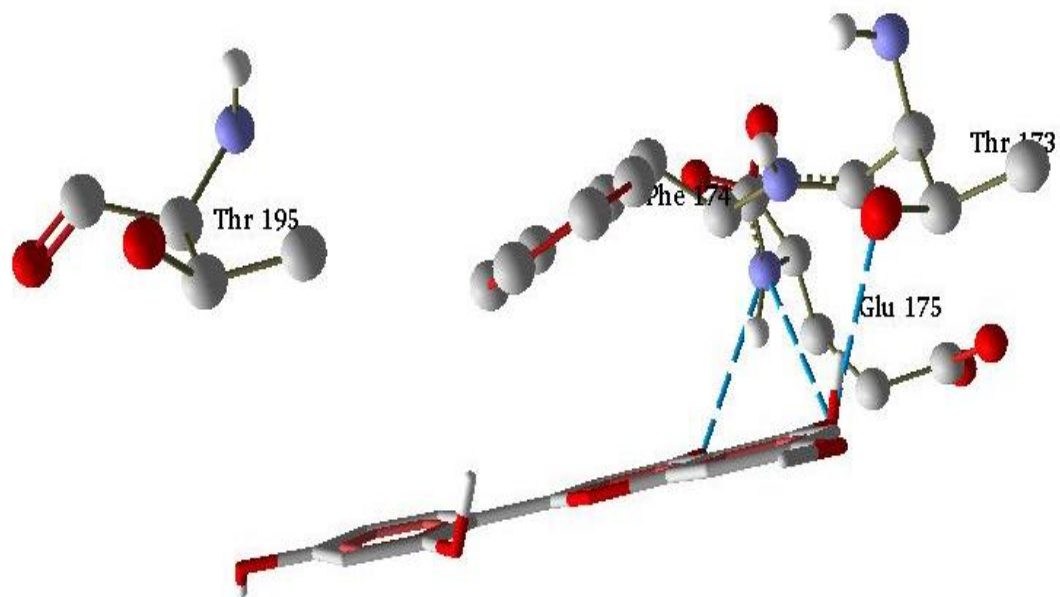
Gambar 37. Interaksi Artoindonesianin E1 dengan GLI1 (2GLI)



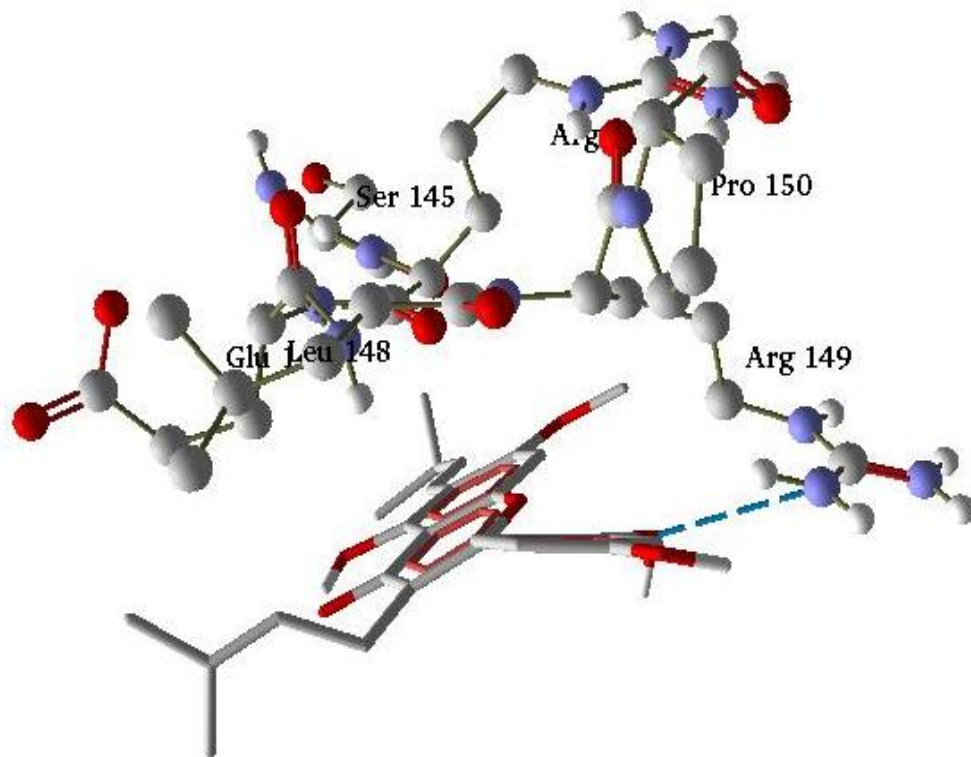
Gambar 38. Interaksi Artoindonesianin F dengan GLI1 (2GLI)



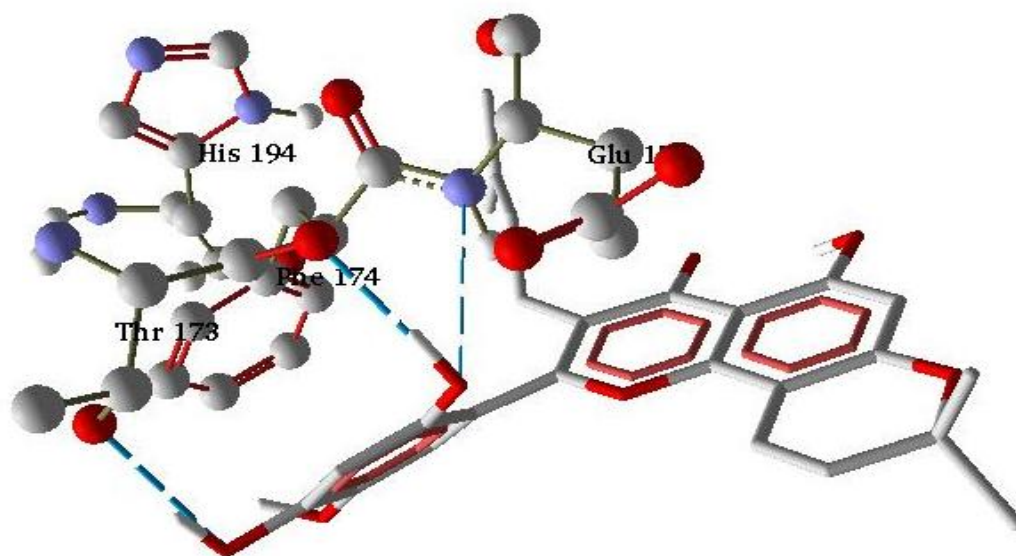
Gambar 39. Interaksi Artoindonesianin P dengan GLI1 (2GLI)



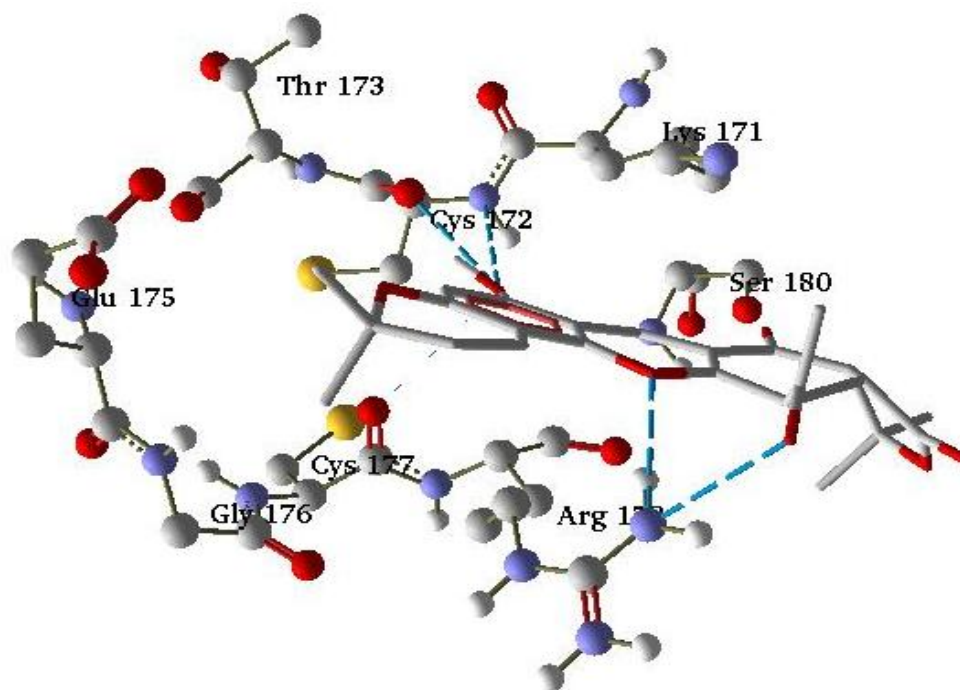
Gambar 40. Interaksi Artokarpanon dengan GLI1 (2GLI)



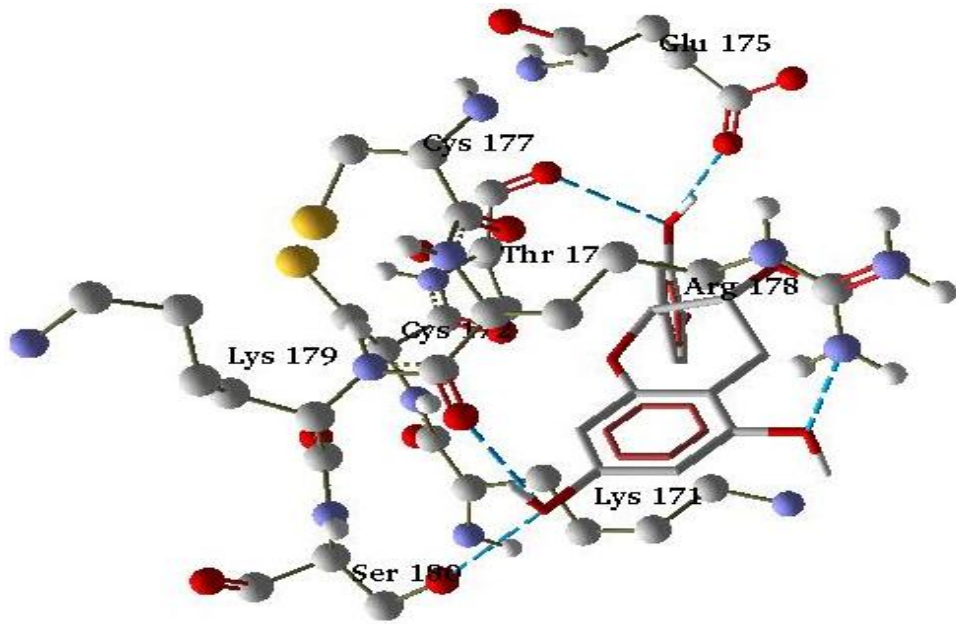
Gambar 41. Interaksi Artokarpin dengan GLI1 (2GLI)



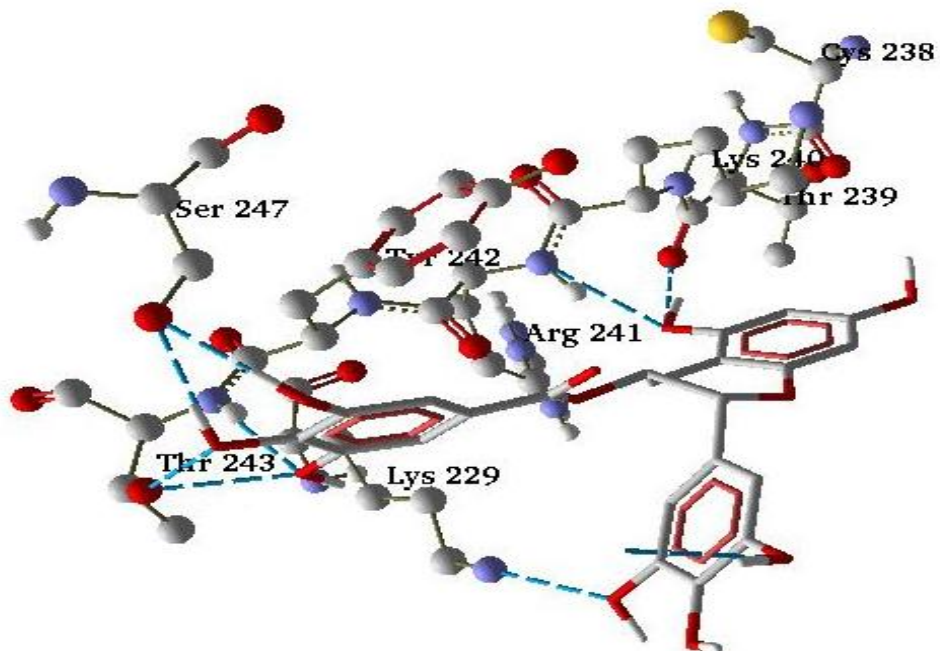
Gambar 42. Interaksi Artonin E dengan GLI1 (2GLI)



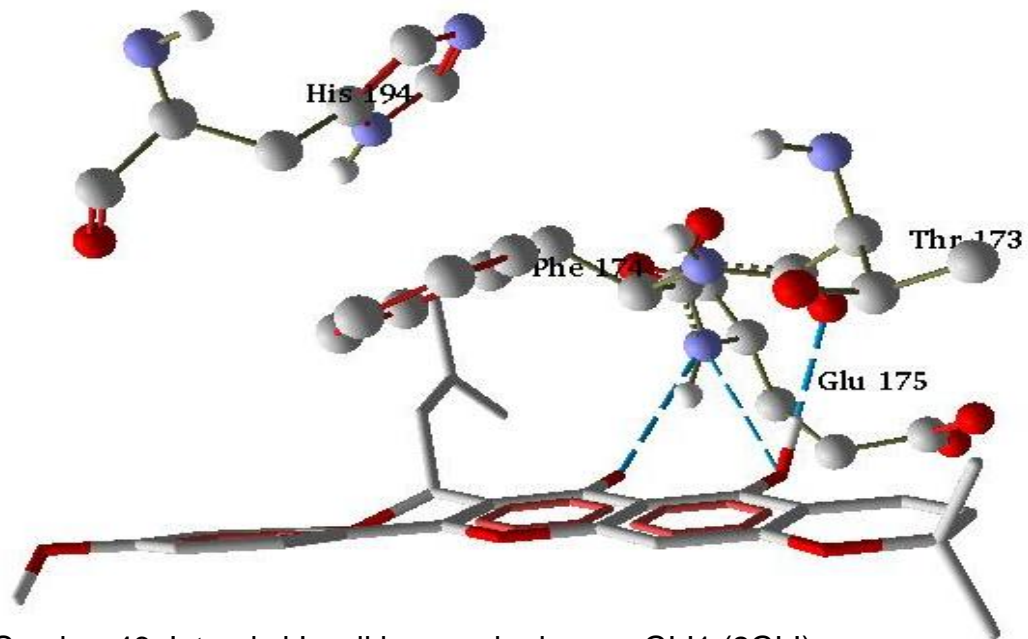
Gambar 43. Interaksi Artonol B dengan GLI1 (2GLI)



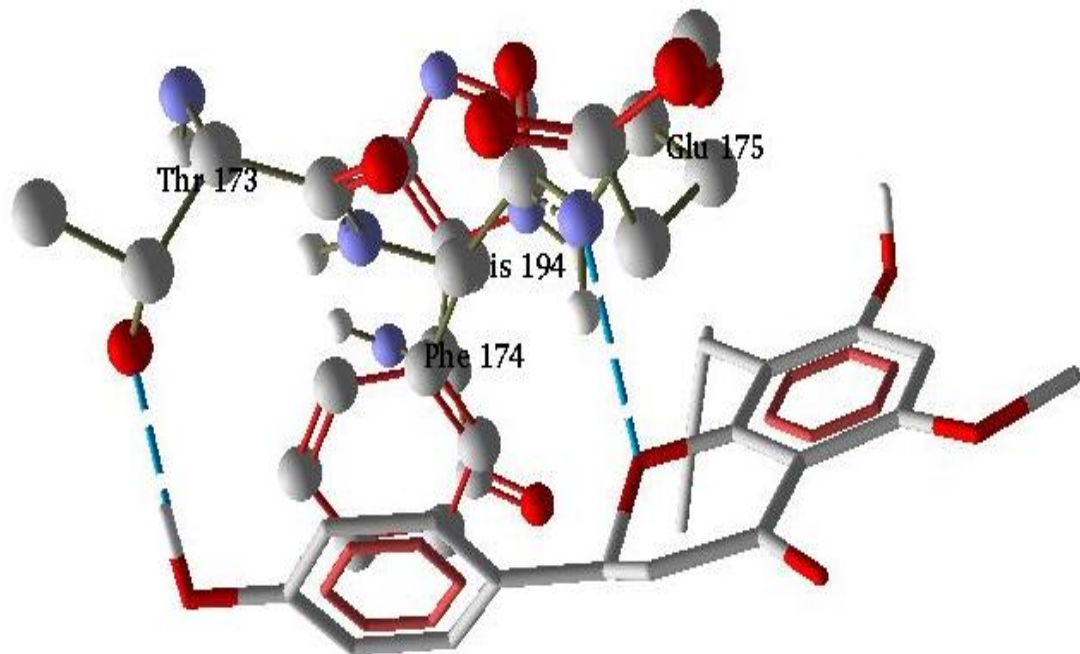
Gambar 44. Interaksi Epicatechin dengan GLI1 (2GLI)



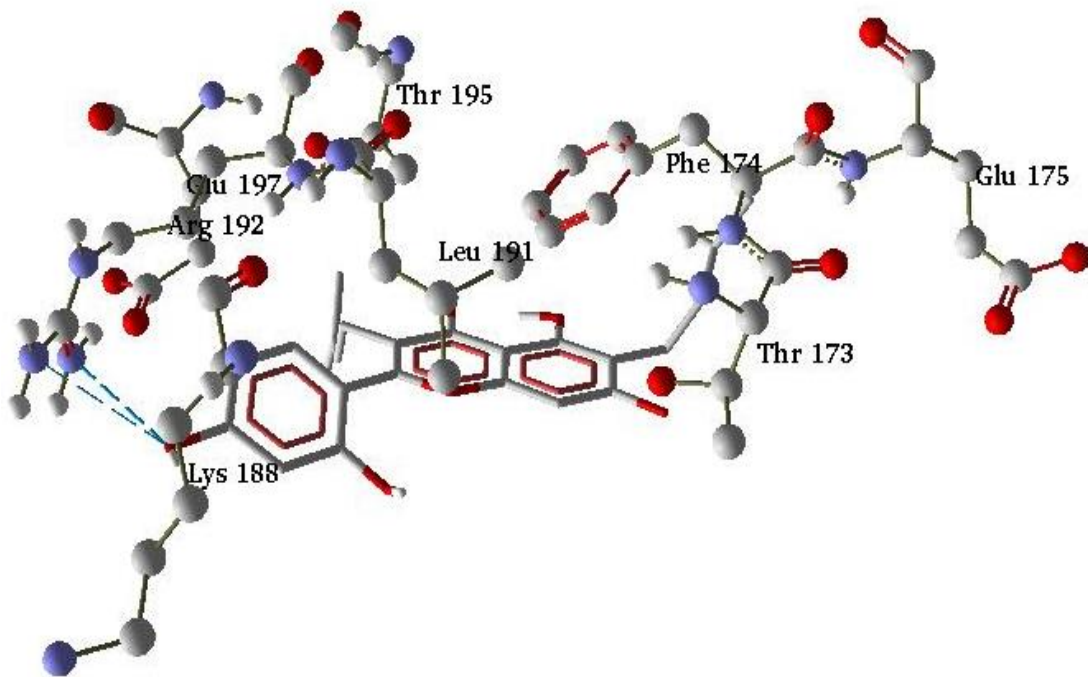
Gambar 45. Interaksi Epigallocatechin-3-gallate dengan GLI1 (2GLI)



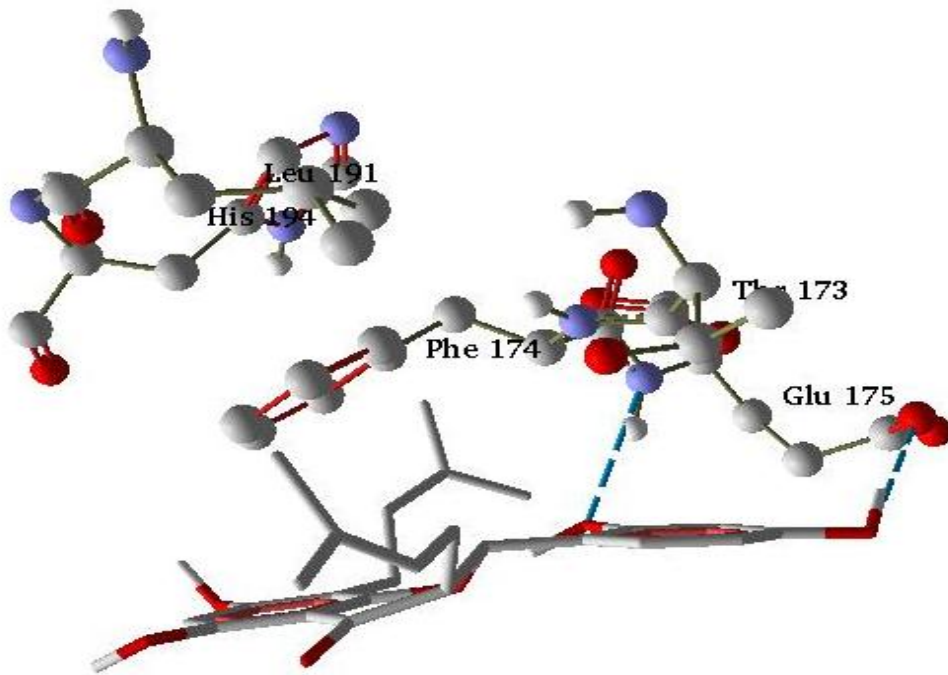
Gambar 46. Interaksi Isosiklomorusin dengan GLI1 (2GLI)



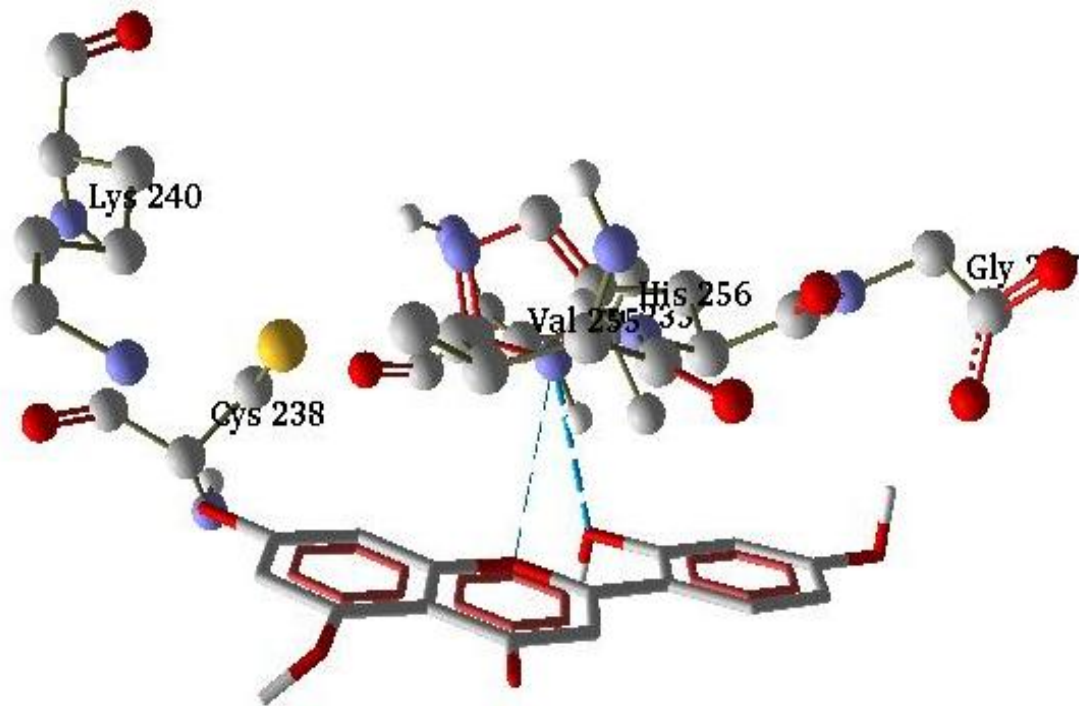
Gambar 47. Interaksi Isoxanthohumol dengan GLI1 (2GLI)



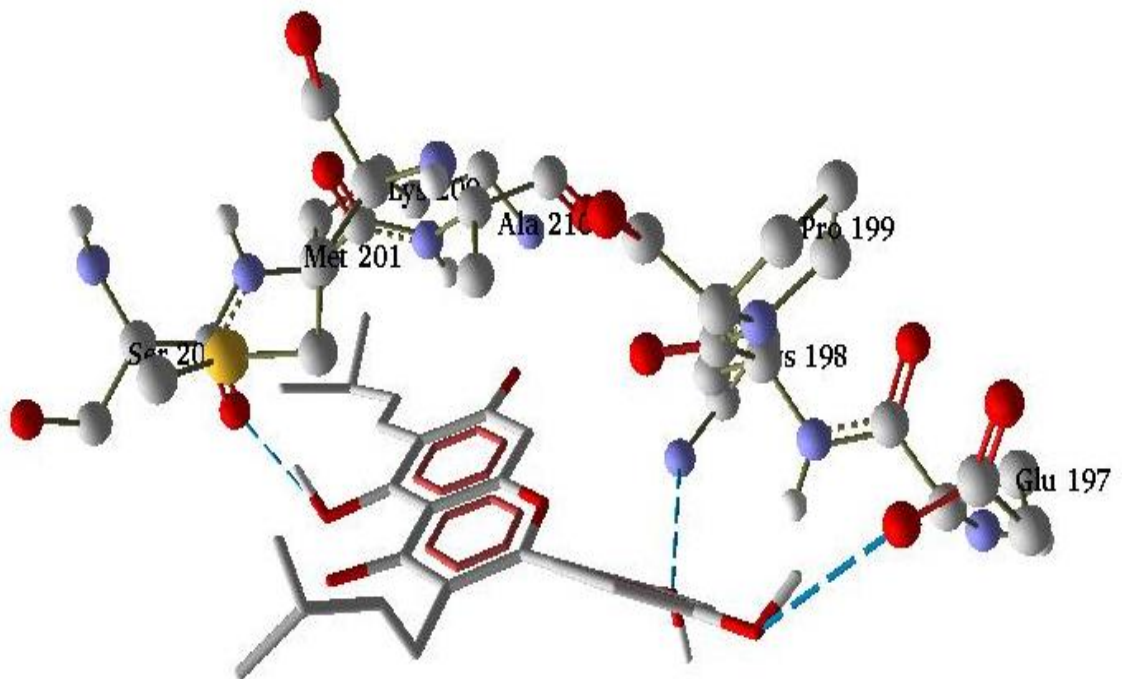
Gambar 48. Interaksi Cudraflavon C dengan GLI1 (2GLI)



Gambar 49. Interaksi Kuwanon C dengan GLI1 (2GLI)

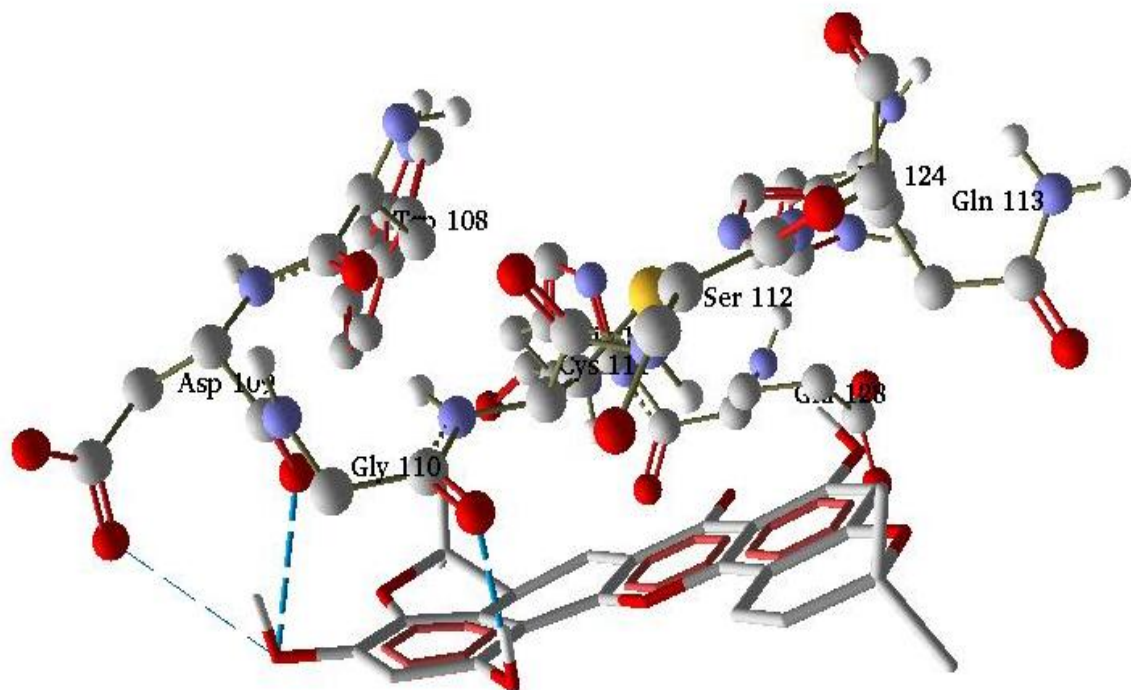


Gambar 50. Interaksi Norartocarpin dengan GLI1 (2GLI)

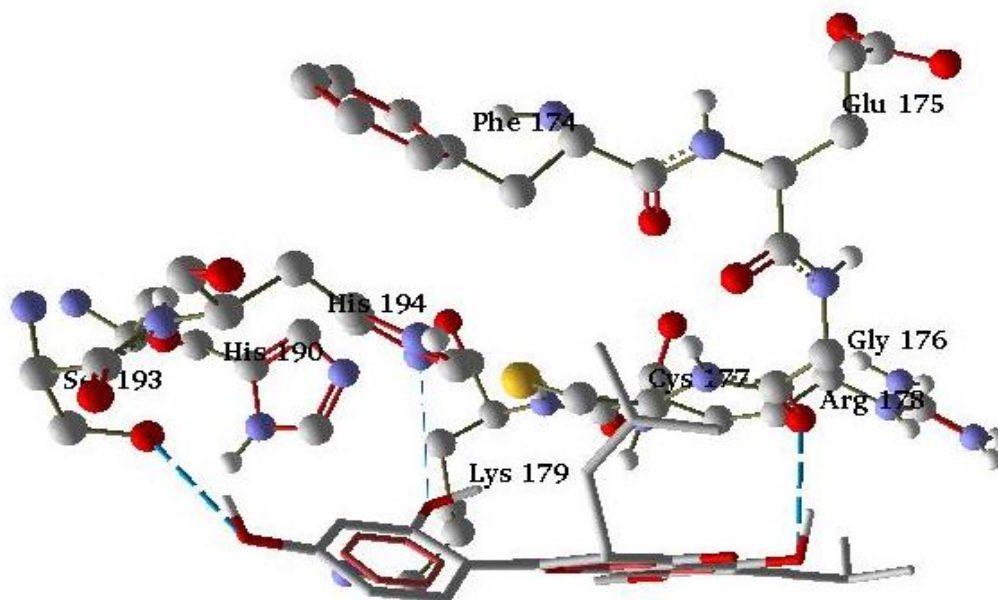


Gambar 51. Interaksi Norartocarpetin dengan GLI1 (2GLI)

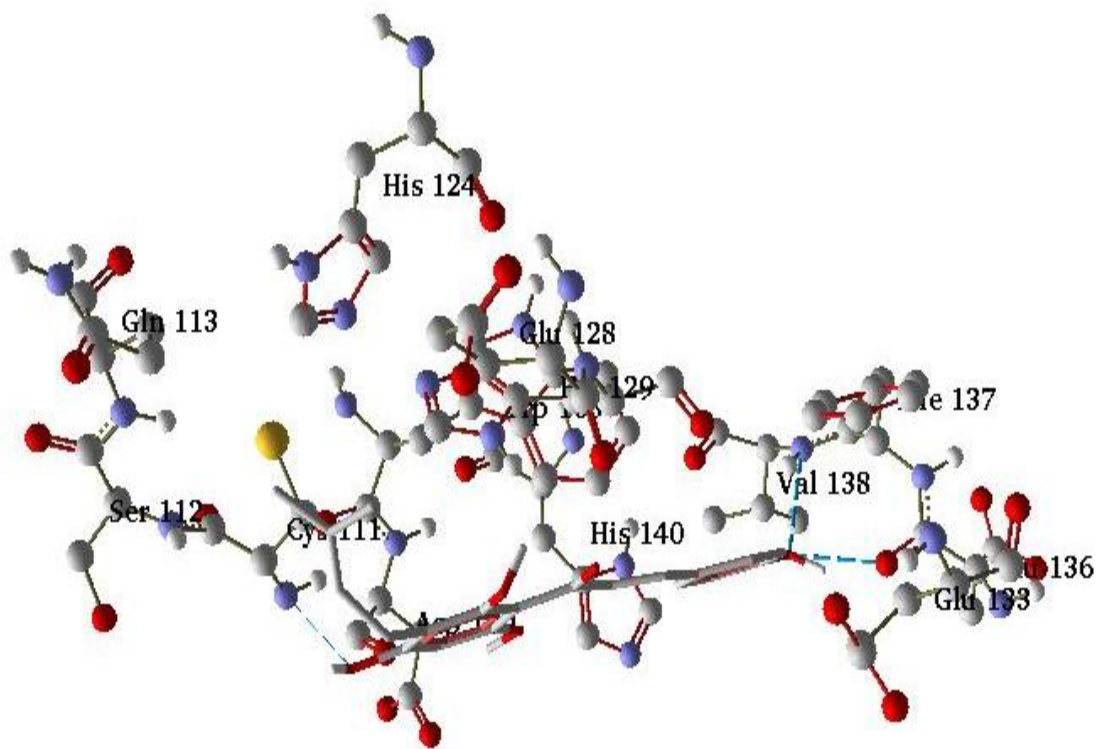




Gambar 52. Interaksi Cycloartobioxanthone dengan GLI1 (2GLI)







Gambar 53. Interaksi Cycloartocarpin dengan GLI1 (2GLI)



Gambar 54. Interaksi Xanthohumol dengan GLI1 (2GLI)

Keterangan:

	= Oksigen
	= Nitrogen
	= Karbon
	= Sulfur