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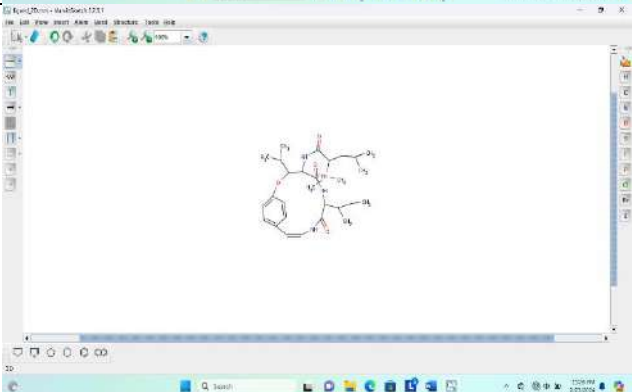
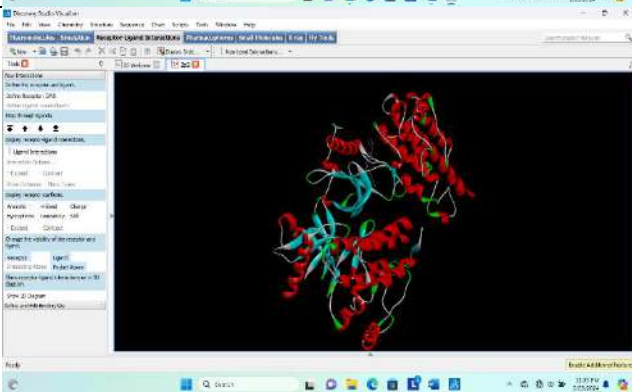
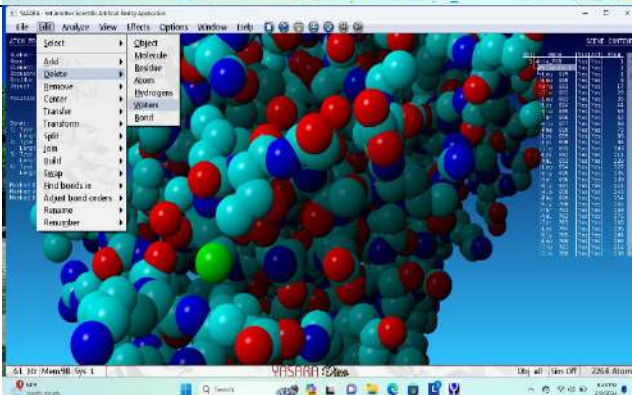
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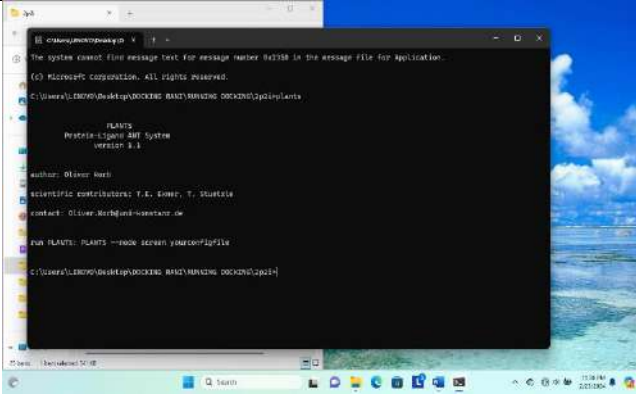
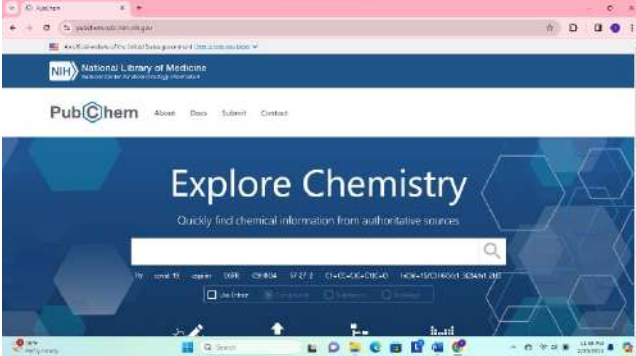


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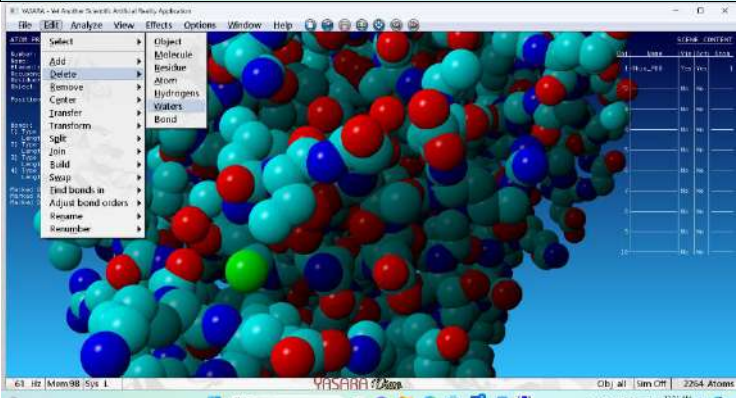
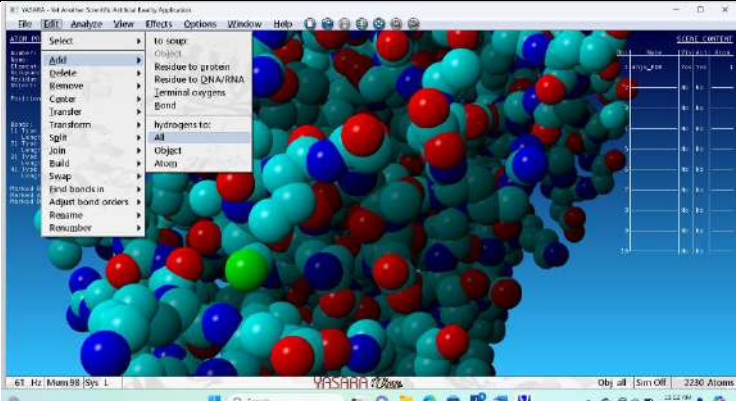
LAMPIRAN

Lampiran 1. Aplikasi dan Web Penunjang yang Digunakan

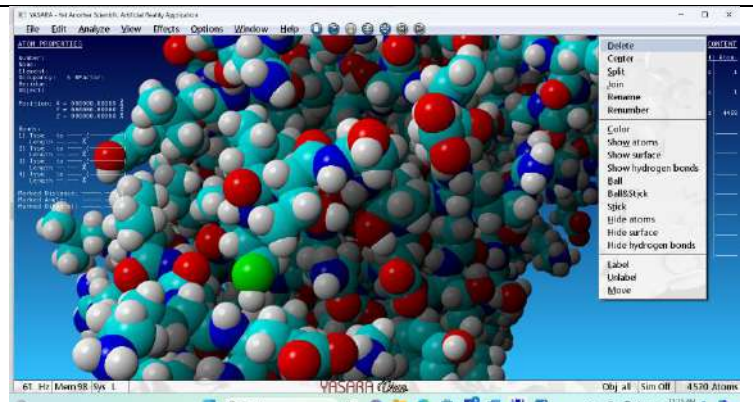
Icon Aplikasi		
Dalam Aplikasi	Marvin Sketch	
	Discovery Studio	
	Yasara	

	<i>PLANTS</i>	
Web Penunjang	Pubchem	
	PDB	
	<i>Uji Lipinski</i>	

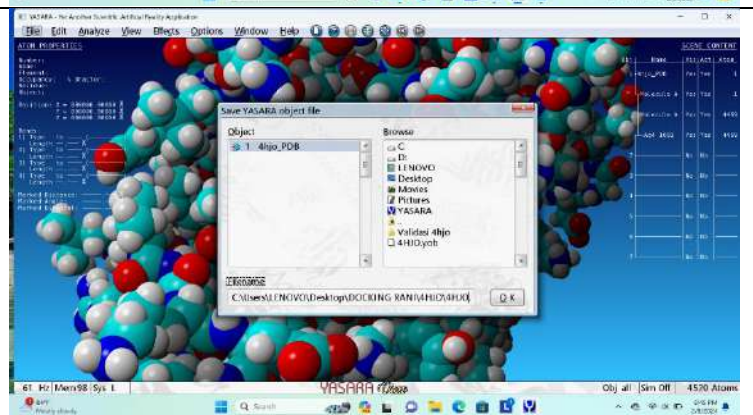
Lampiran 2. Tahapan Preparasi Protein dan *Native Ligand*

Load File Protein	
Penghapusan Air	
Penambahan Hidrogen	

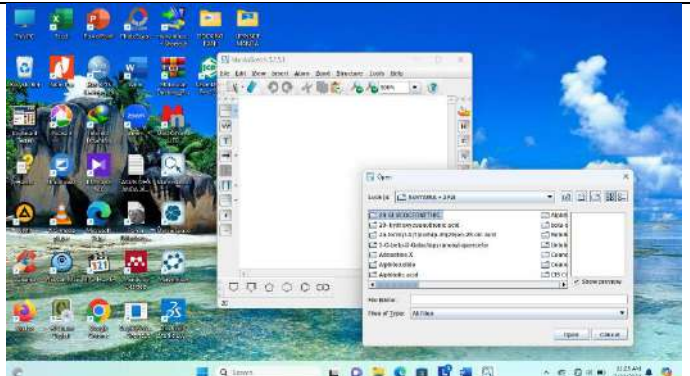
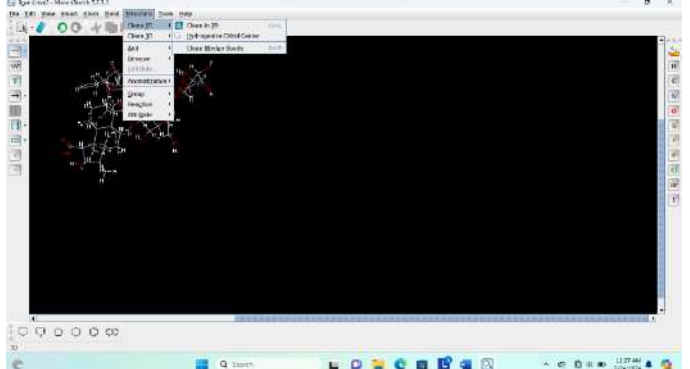
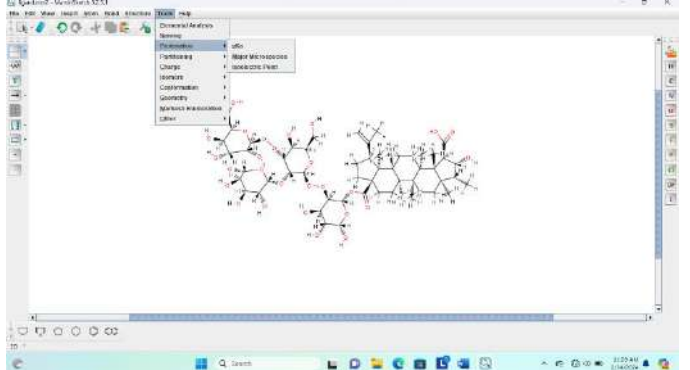
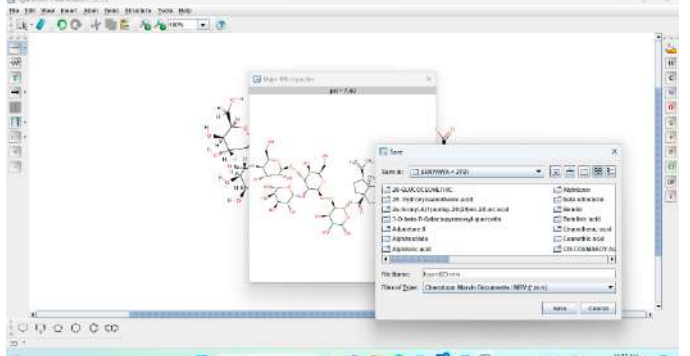
Penghapusan Rantai yang tidak digunakan (Preparasi Protein); Penghapusan protein (sisakan *native ligand*)

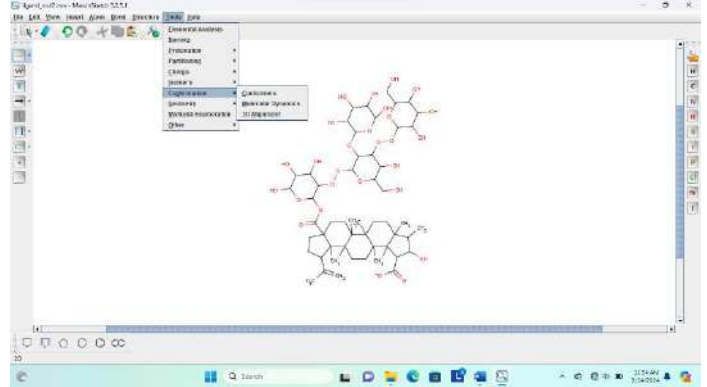
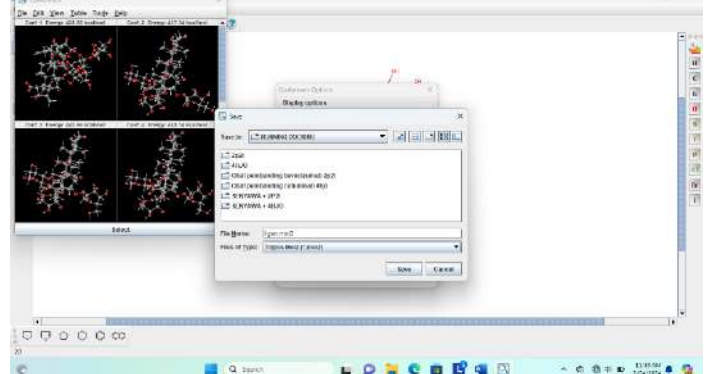


Penyimpanan Hasil Preparasi

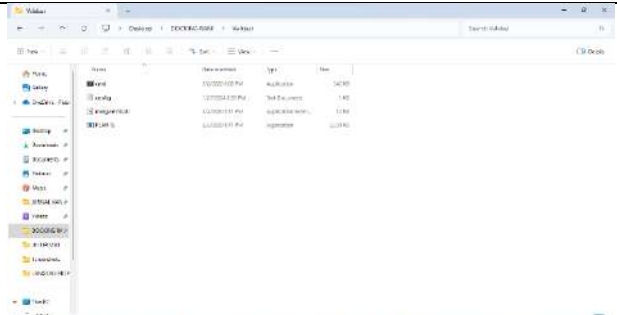
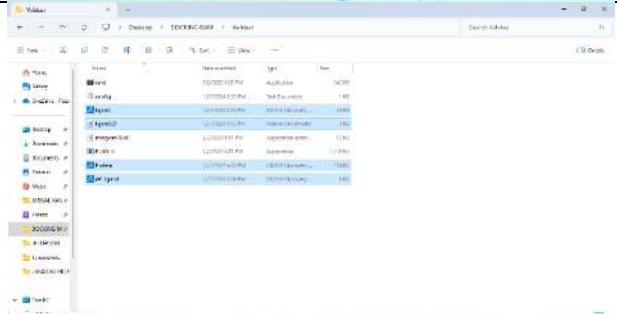
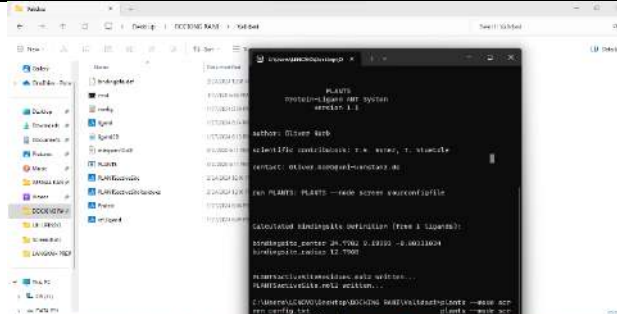
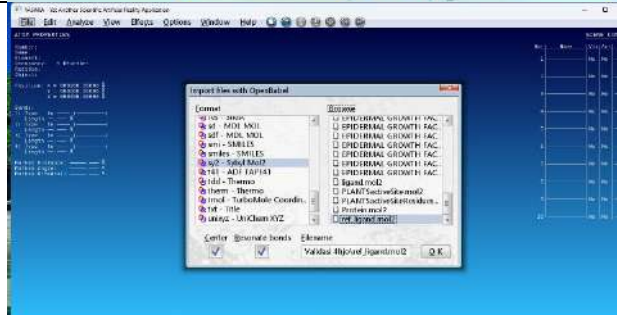


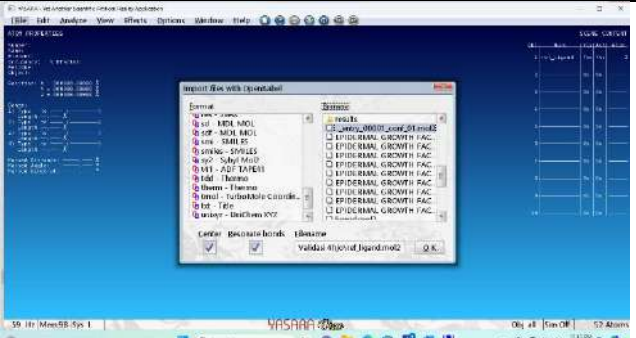
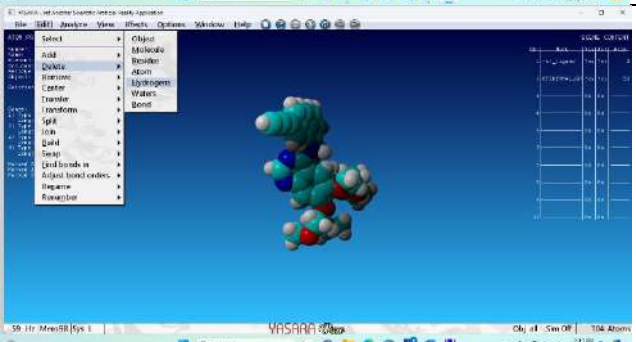
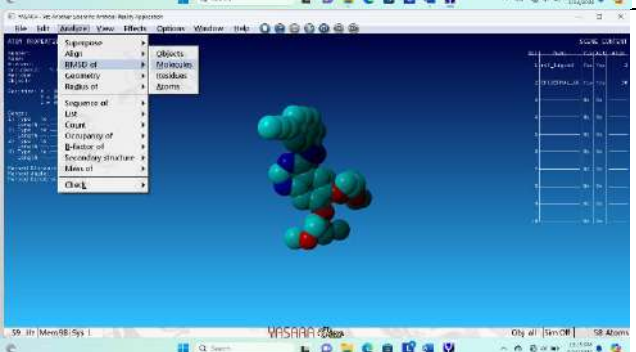
Lampiran 3. Tahapan Preparasi Ligand Senyawa Pembanding dan Senyawa Uji

<p>Buka <i>Marvin Sketch</i>, Load File Protein/Gambar Struktur Ligan</p>	
<p>Clean 2D ligand</p>	
<p>Protonasi di PH 7,4</p>	
<p>Simpan Hasil Preparasi dengan Nama ligand2D.mrv</p>	

<p>Pembuatan Konformasi</p>	 A screenshot of the Avogadro software interface. The main window displays a ball-and-stick model of a complex organic molecule, likely a polyphenol. A context menu is open over the molecule, with the 'Conformation' option selected. The menu includes sub-options: 'Randomize', 'Minimize Strain', and 'Relaxation'. The software's title bar reads 'Avogadro - Mol (K3C10 5211)'. The Windows taskbar at the bottom shows the time as 11:51 AM on 3/24/2024.
<p>Penyimpanan Hasil Konformasi dengan nama ligan.mol2</p>	 A screenshot of the Avogadro software interface. The main window shows four panels, each displaying a different conformation of the molecule. A 'Save' dialog box is open in the foreground, titled 'Save'. The 'File name' field contains 'K3C10 (K3C10)'. The 'File type' is set to 'Mol2 (*.mol2)'. The dialog box has 'Save' and 'Cancel' buttons. The Windows taskbar at the bottom shows the time as 11:51 AM on 3/24/2024.

Lampiran 4. Tahapan Validasi Protein dan Penetapan RMSD

Validasi Protein	Siapkan Folder Untuk Validasi Protein dengan PLANTS	
	Masukkan ke Folder File Protein dan <i>Ligand Native</i> yang sudah dipreparasi	
	Docking Senyawa <i>Native Ligand</i> dengan PLANTS	
Penetapan RMSD	Load File <i>ref_ligand.mol2</i>	

	<p>Load <i>ligand native</i> hasil docking</p>	
	<p>Hapus Hydrogen</p>	
	<p>Klik analys kemudian RMSD of molecules</p>	

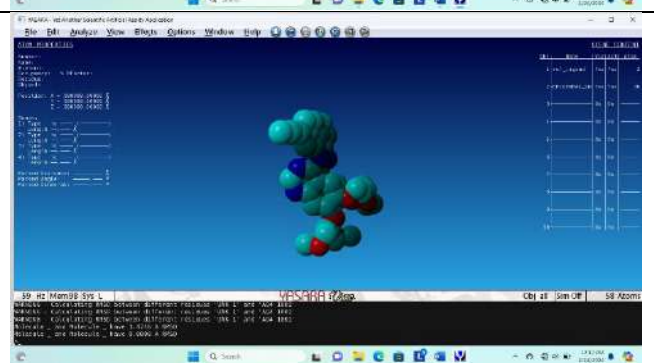
Sesuaikan Parameter

The first screenshot shows the 'Select molecules in best RMSD range' dialog box with 'Seq 1' and 'Seq 2' selected in the 'Sequence' column. The 'References to select' list includes 'All', 'AminoAcid', 'Protein', 'Nucleotide', 'Residue', 'Water', 'Obj 1', and 'Obj 2'. The 'Match atoms, consider only those present in both selected' and 'Use chemically equivalent groups to minimize RMSD' options are checked. The 'Use an RMSD per:' dropdown is set to 'Object'.

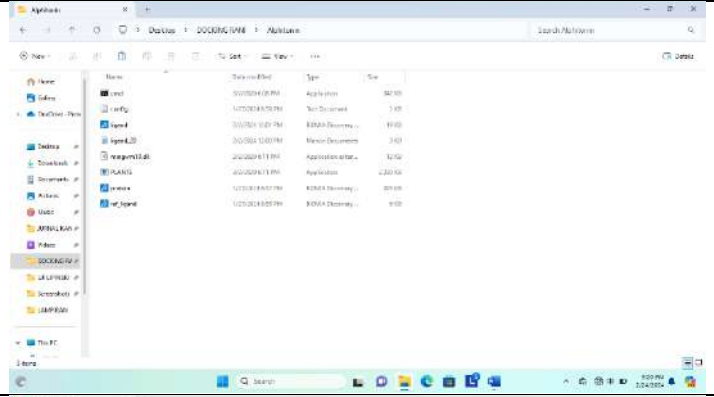
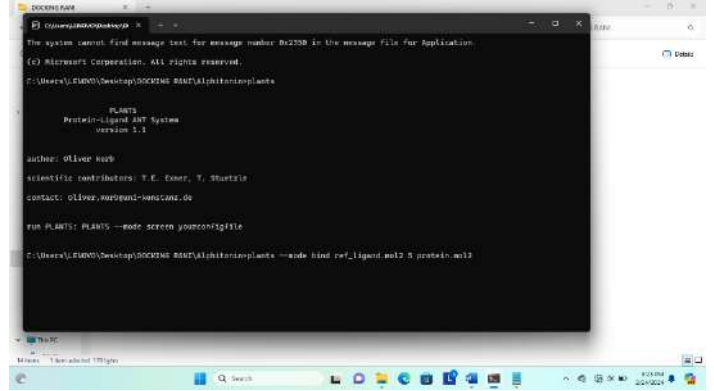
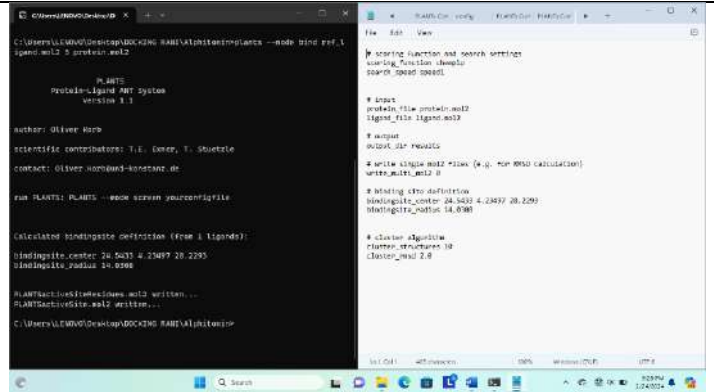
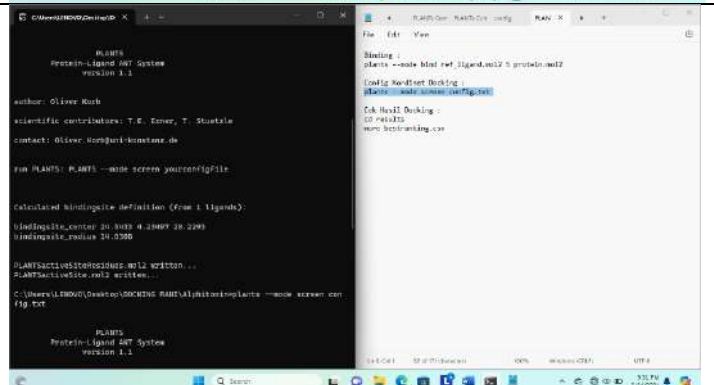
The second screenshot shows the same dialog box with the 'References to select' list expanded to show 'All', 'AminoAcid', 'Protein', 'Nucleotide', 'Residue', 'Water', 'Obj 1', and 'Obj 2'.

The third screenshot shows the 'Set parameters' dialog box with the following options checked: 'Match atoms, consider only those present in both selected' and 'Use chemically equivalent groups to minimize RMSD'. The 'Use an RMSD per:' dropdown is set to 'Object'.

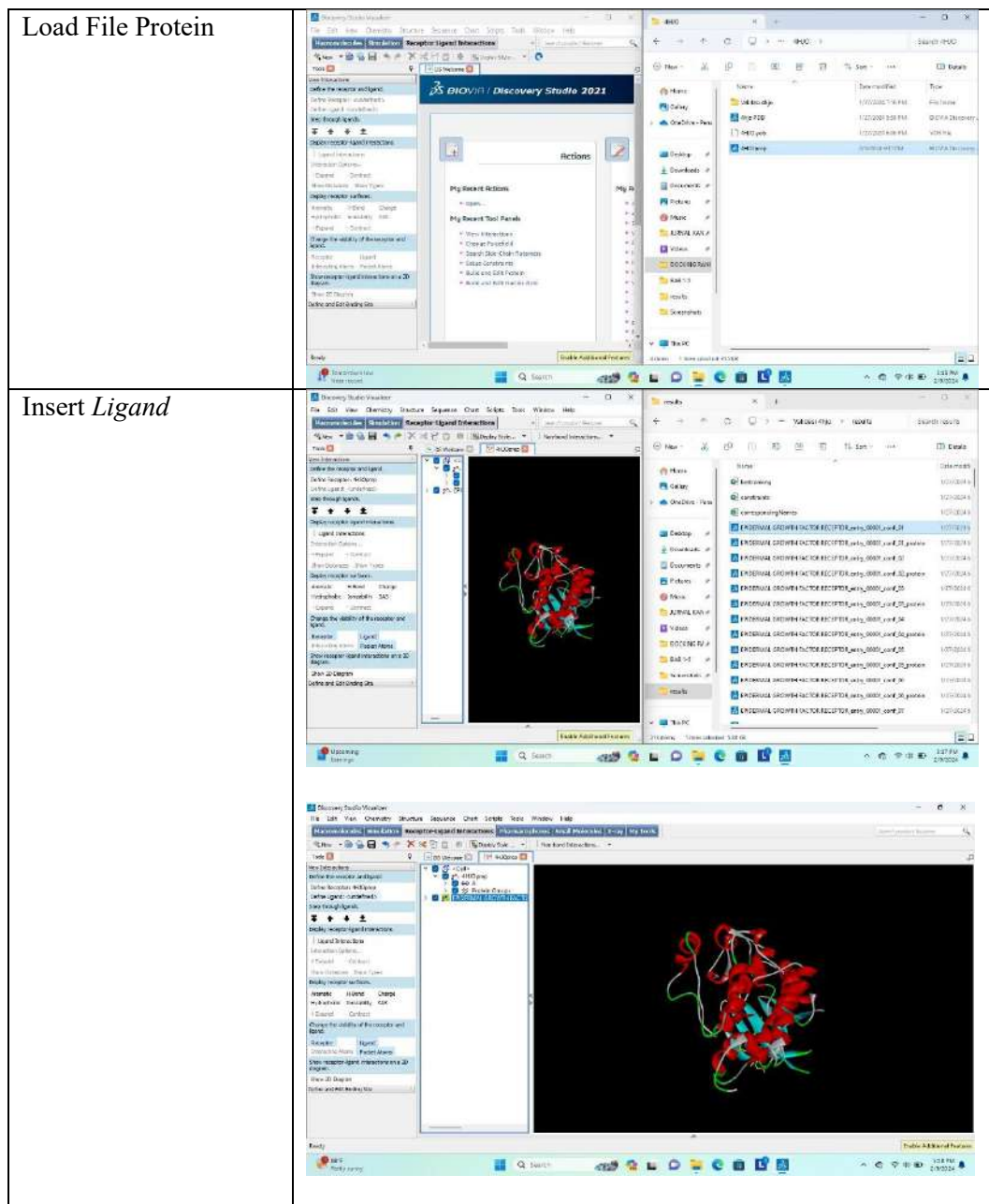
Lihat Hasil



Lampiran 5. Tahapan Docking Senyawa

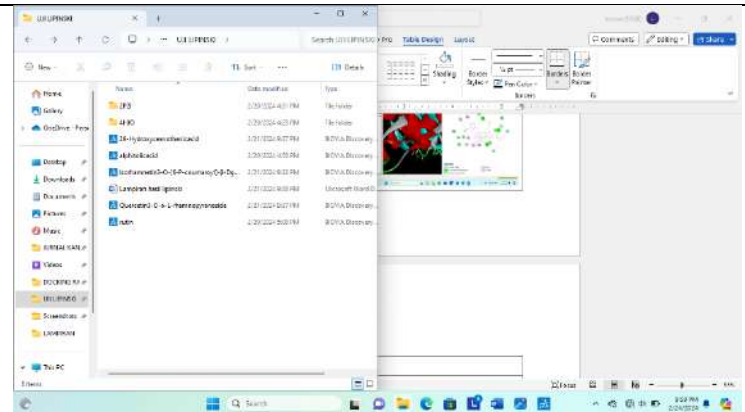

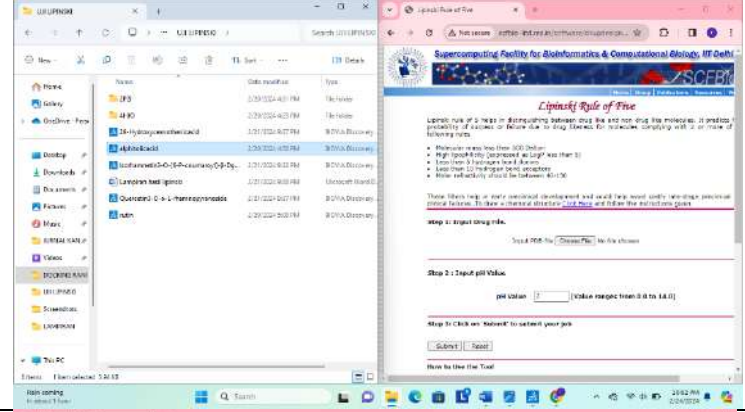

<p>Siapkan Folder dan File</p>	
<p>Masukkan perintah “plants—mode bind ref_ligand.mol2 5 protein.mol2”</p>	
<p>Ubah Kordinat protein di File Config dengan di layer plants</p>	
<p>Masukkan perintah “plants==mode screen config.txt”</p>	

Lampiran 6. Tahapan Visualisasi Ikatan Senyawa dan Protein



<p>Atur Parameter</p>	
<p>Show 2D</p>	

Lampiran 7. Tahapan Uji Lipinski

<p>Siapkan Ligand Dalam Bentuk .pdb</p>	
<p>Buka Website Uji Lipinski</p>	
<p>Pilih File Ligand</p>	
<p>Submit</p>	

Cek Result

The screenshot shows a web application interface for checking results. The page is titled "Cek Result" and contains a form with the following elements:

- Step 3: Input pH Value**: A form with a "pH Value" input field containing the number "7". A note below the field states "(Value ranges from 0.0 to 14.0)".
- Submit / Cancel**: Two buttons located below the input field.
- Result**: A section displaying the following data:
 - Acid: 434.000000
 - Berkas: 0
 - Berkas: 0
 - DPM: 0
 - Rasio: 0.000000
- How to Use the Tool**: A section with instructions:
 - The result of the calculation is the following format: `Acid: 434.000000`
 - The result for error should not contain white spaces.
 - Change the separator file.
 - Click on Submit.
 - If the data for value not showing, please refresh via input file format and submit it again.
 - To check a chemical structure [Click Here](#).
 - Follow the instructions page.
 - Don't forget to report the form.
 - 2020-08-08 (08:00).
- References**: A section with a link to "Can you...".
- Tell me more**: A button located on the right side of the screenshot.

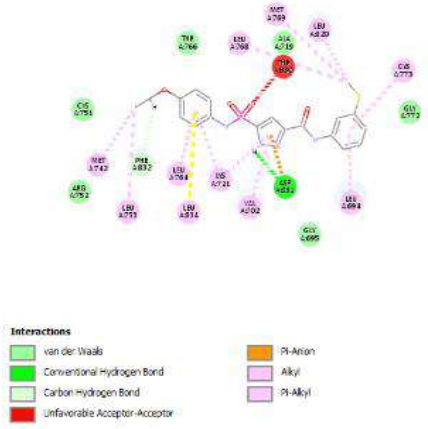
Lampiran 8. Hasil RMSD Protein Kanker Kolorektal

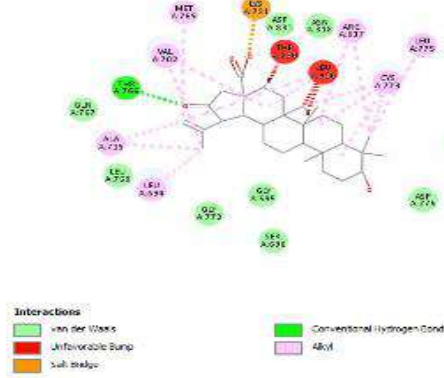
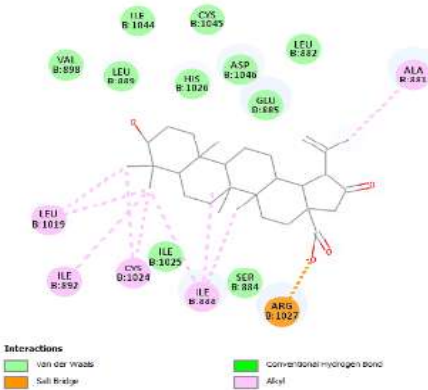
Protein (Reseptor)	Konformasi	Skor Docking	RMSD
4HJO	1	-103.046	1.4746
<i>(Epidermal Growth Factor Reseptor)</i>	2	-103.022	1.4720
	3	-102.489	1.5304
	4	-102.611	1.4335
	5	-102.363	1.4688
	6	-102.969	1.4942
	7	-102.671	1.4658
	8	-100.297	1.9648
	9	-101.972	1.4679
	10	-102.529	1.5809
	2P2I	1	-113.492
<i>(Vascular Endothelial Growth Factor Receptor)</i>	2	-111.546	0.8169
	3	-115.511	1.5294
	4	-119.197	1.4272
	5	-116.343	1.0921
	6	-115.201	1.0961
	7	-117.339	1.1748
	8	-112.438	1.3510
	9	-118.818	1.0809
	10	-117.435	1.2152

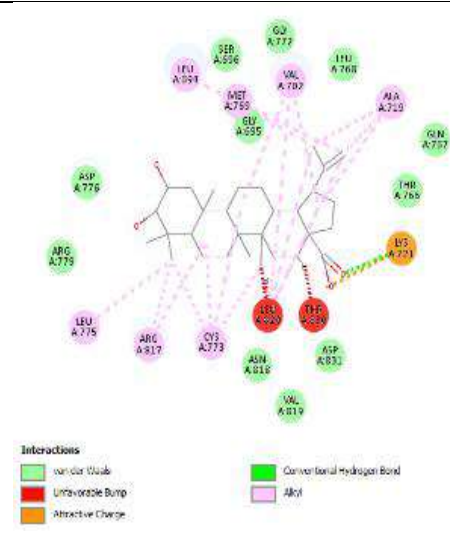
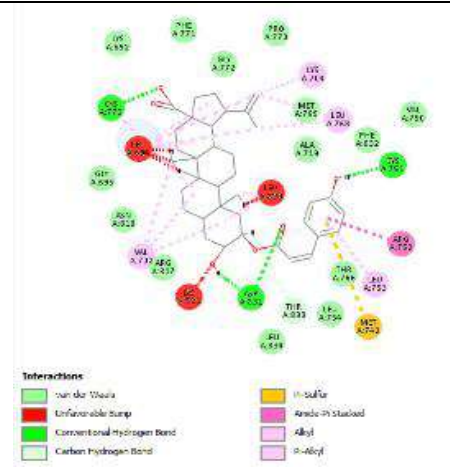
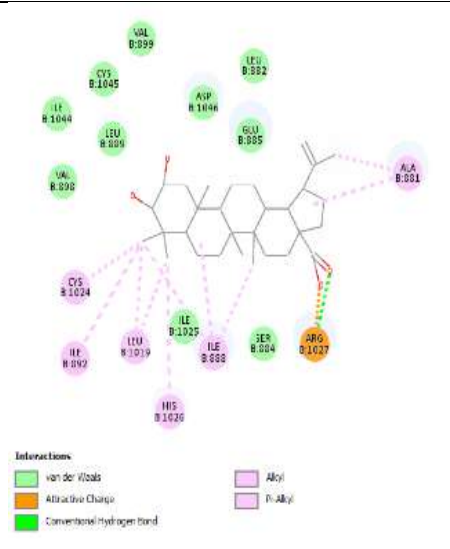
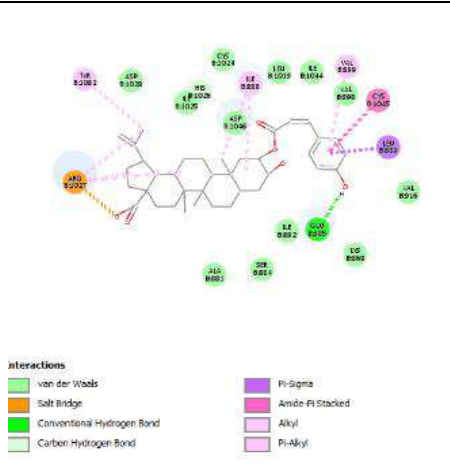
Keterangan : Nilai yang terpilih dan memenuhi parameter RMSD <2

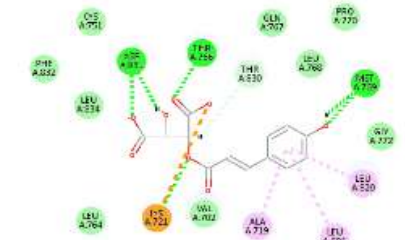
Lampiran 9. Hasil Docking, Visualisasi, dan Residu Asam Amino Senyawa Genus *Alphitonia*

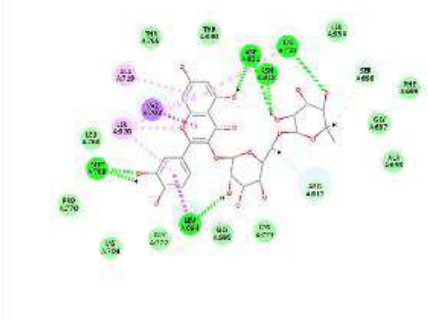
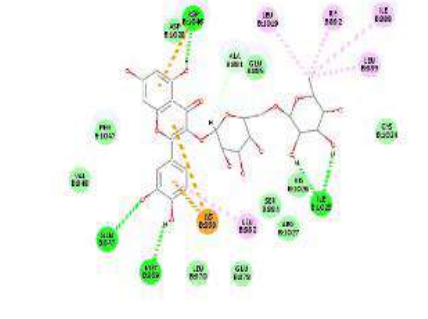
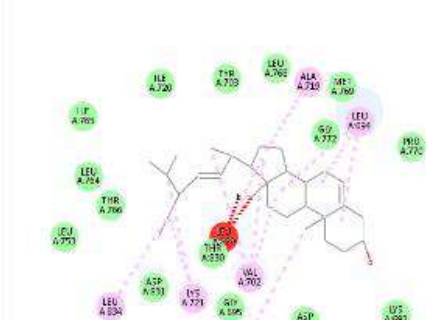
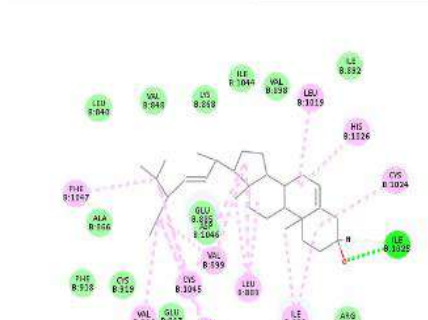
No	Senyawa/ Ligand	Conformer	Protein		Visualisasi		Residu Asam Amino	
			4HJO	2P2I	4HJO	2P2I	4HJO	2P2I
1	Native	1	-103.046	-113.492			LYS A:721 VAL A:702 ALA A:719 LEU A:820 LEU A:694	CYS B:1024 LEU B:1019 LEU B:1035 ALA B:866 VAL B:916 VAL B:848 LEU B:889
		2	-103.022	-111.546			LEU A: 764 GLN A: 767	PHE B:918 GLU B:917
		3	-102.489	-115.511			CYS A:773 MET A:769 LYS A:704	CYS B: 919 GLU B: 885
		4	-102.611	-119.197			LEU A: 768 GLY A: 772	VAL B: 899
		5	-102.363	-116.343				
		6	-102.969	-115.201				
		7	-102.671	-117.339				
		8	-100.297	-112.438				
		9	-101.972	-118.818				
		10	-102.529	-117.435				
2	Cetuximab	1	-100.435	-			LEU A:768 MET A:769 LEU A:820 CYS A:773 LEU A:694	-

						MET A:742 LEU A: 753 LEU A:764 LEU A:834 LYS A:721 VAL A:702 LEU A: 694	
		2	-102.208	-		ASP A:831	-
		3	-96.5392	-		PHE A:832	-
		4	-96.5	-		THP A:830	-
		5	-101.637	-			-
		6	-99.8231	-			-
		7	-102.28	-			-
		8	-103.618	-			-
		9	-100.211	-			-
		10	-98.2228	-			-
3	Bevacizumab	1		-82.5468		ALA B:866 CYS B:1045 VAL B:916 VAL B:899 LEU B:1035 PHE B:1047 VAL B:848	
		2		-82.8146		CYS B: 919 ASP B:1046	
		3		-83.0241		LYS B:868	
		4		-83.0043		PHE B:918	
		5		-82.7775			
		6		-83.0624			

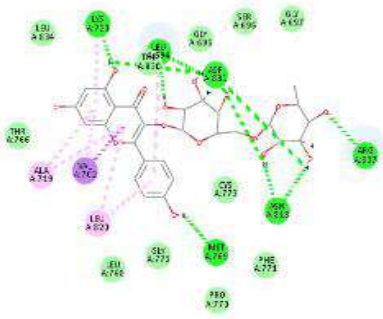
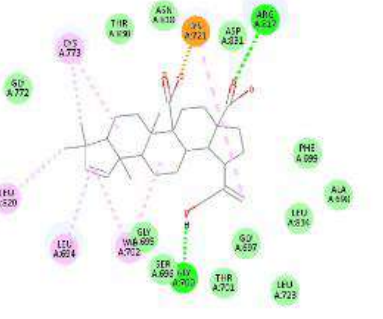
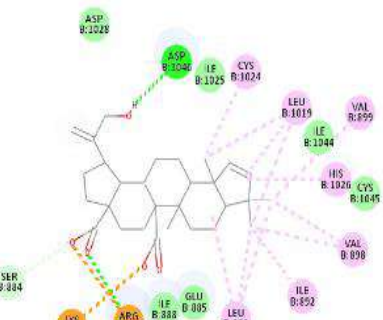
		6	-86.0733	-82.0079				
		7	-86.0323	-81.6469				
		8	-85.8145	-81.4153				
		9	-85.9173	-82.4718				
		10	-85.9905	-82.6294				
5	<i>2-Ketobetulinic acid</i>	1	-67.634	-73.7887			THR A: 766	ARG B: 1027
		2		-72.2763			ALA A:719 ARG A: 817 CYS A: 773 LEU A: 775 LEU A:694 ME T A: 769 VAL A: 702	ALA B: 881 CYS B: 1024 ILE B: 888 ILE B: 892 LEU B: 1019
		3	-65.3384	-73.8581				
		4	-67.1968	-73.1844				
		5	-65.6779	-74.0362				
		6	-64.237	-72.3278				
		7	-63.6233	-72.1531				
		8	-64.5664	-71.5721				
		9	-65.6164	-73.0385				
		10	-64.1166	-71.6005				
6	<i>Alphitollic acid</i>	1	-66.9985	-74.2965			LYS A: 721	ARG B: 1027
		2					THR A: 830 LEU A: 820	ALA A: 881 CYS B: 1024 ILE B: 892 ILE
			-66.9249	-74.1826				

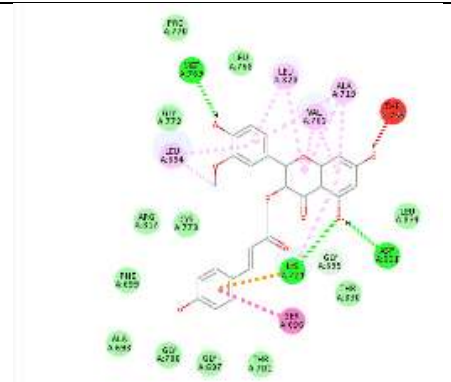
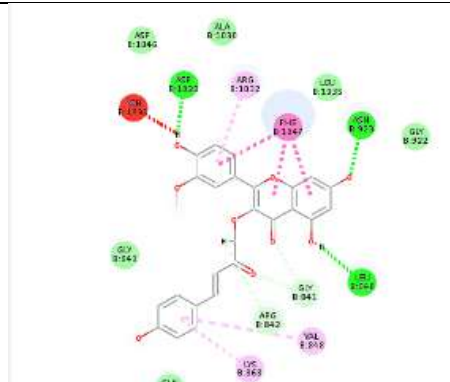
					 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Unfavorable Bump Attractive Charge Conventional Hydrogen Bond Alkyl 		
		3	-68.411	-73.4419			
		4	-67.3483	-74.4963			
		5	-66.9935	-74.0681			
		6	-67.8034	-74.384			
		7	-67.9811	-72.7907			
		8	-67.0314	-74.1228			
		9	-68.7571	-71.7842			
		10	-67.5214	-74.2374			
7	3-O-Cis-p-Coumaroyl aphitolic acid	1	-87.6377	-85.0584	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Unfavorable Bump Conventional Hydrogen Bond Carbon Hydrogen Bond Sulfur Amide-Pi Stacked Alkyl pi-Alkyl 		
		2	-86.79	-88.3605			
		3	-88.2855	-85.9986			
		4	-86.0648	-88.7478			
		5	-93.266	-87.2428			
		6	-84.8468	-88.4604			
		7	-84.7635	-88.6802			
		8	-90.8286	-88.5672			
		9	-82.7416	-83.6603			
		10	-82.8859	-82.4549			
					 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Salt Bridge Conventional Hydrogen Bond Carbon Hydrogen Bond Pi-Sigma Amide-Pi Stacked Alkyl Pi-Alkyl 	B: 888 LEU B: 1019 HIS B: 1026	
					 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Attractive Charge Conventional Hydrogen Bond Pi-Alkyl 	ALA A:719 ARG A: 817 CYS A: 773 LEU A: 775 LEU A: 694 MET A: 769 VAL A: 702	
					LYS A: 721	ARG B: 1027	
					CYS A: 751 CYS A:773 ASP A: 831	GLU B:885 ARG B:1027	
					LEU A: 820 LEU A: 694 LYS A:721	HIS B:1026 CYS B:1045	
					ARG A: 752	VAL B:899 TYR B:1082 ILE B:888	
					THR A: 830	LEU B:889	
					LEU A: 753 LEU		

							A:768 LYS A:704 VAL A: 702			
8	<i>3-O-p-Trans-7-Coumaroyl aphitolic acid</i>	1	-84.1539	-82.4614	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Attractive Charge Conventional Hydrogen Bond Carbon Hydrogen Bond Unfavorable Negative-Negative Pi-Alkyl 		THR A: 830	CYS B:919 GLU B:885 ASP B:1046		
		2	-84.3599	-82.9554				ASP A: 831 MET A: 769 THR A: 766 LYS A: 721	LYS B:868	
		3	-88.6126	-79.2032				ALA A: 719 LEU A: 694 LEU A: 820		LEU B:1035 ALA B:866 LEU B:840
		4	-88.5996	-78.309				LYS A: 721		PHE B:1047 VAL B:867
		5	-88.7004	-78.5425						VAL B:848 VAL B:916
		6	-88.401	-75.172						
		7	-84.2853	-84.0819						
		8	-83.5137	-84.3679						
		9	-88.4057	-77.5611						
		10	-84.2864	-80.0858						
9	<i>Rutin</i>	1	-104.489	-78.788		ALA A:719 LEU A:820	LYS B: 868			
		2	-99.421	-76.6357		VAL A:702	ILE B: 1019 ILE B: 892 ILE			
		3	-97.9603	-75.1807		MET A:769 LEU A:694				

					 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Conventioneel Hydrogen Bond Carbon Hydrogen Bond Pi-Sigma Pi-Alkyl 	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Conventioneel Hydrogen Bond Carbon Hydrogen Bond Pi-Alkyl Pi-Cation 	ASP A:831 ASN A:818 LYS A:721	B: 888 LEU B: 889 LEU B:882
		4	-98.8269	-73.4409			ARG A:817 SER A:696	ILE B: 1025 ASP B: 1046 GLN B:847 ME T B: 869
		5	-97.6836	-73.3849				ALA B: 881
		6	-100.31	-76.7891				
		7	-104.646	-81.0856				
		8	-98.8224	-76.4757				
		9	-99.7808	-75.1797				
		10	-98.5519	-80.8015				
10	<i>Stigmasterol</i>	1	-95.7533	-83.6522	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Conventioneel Hydrogen Bond Carbon Hydrogen Bond Unfavorable Bump Alkyl 	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Conventioneel Hydrogen Bond Carbon Hydrogen Bond Alkyl Pi-Alkyl 	ALA A:719 CYS A: 773 LEU A: 694 LEU A: 834 LYS A: 721 VAL A: 702	ILE B:1025 ILE B: 1025 VAL B:899 VAL B:916 ILE B:888 LEU B:889 CYS B:1045 PHE B:1047 LEU B:1035 CYS B:1024 HIS B: 1026 LEU B:1019
		2	-94.6749	-79.6349				
		3	-96.0936	-83.5991				
		4	-96.0782	-83.6963				
		5	-95.5731	-85.3837				
		6	-95.7595	-82.4836				
							LEU A: 820	

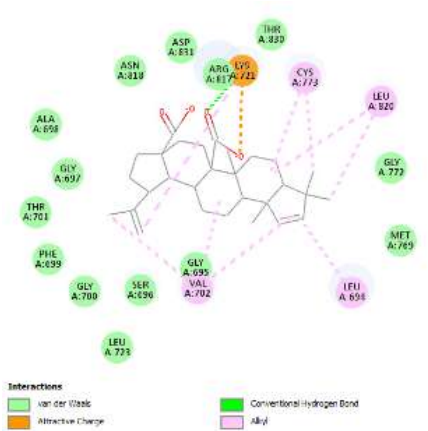
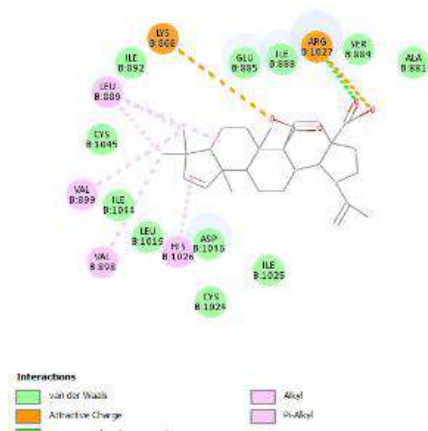
		7	-95.5554	-82.6402				
		8	-94.9074	-83.8036				
		9	-94.6798	-84.7883				
		10	-94.97	-80.9184				
11	<i>2α-Formyl-A(1)norlup-20(29)-en-28-oic acid</i>	1	-63.8425	-65.297			CYS A: 773 LYS A: 721	ALA B: 881 CYS B:1024 HI S B: 1026 LEU B: 889 LEU B:1019 ILE B:888
		2	-64.8717	-65.1465			ARG A: 817 LEU A: 694 LEU A: 820 MET A: 769 VAL A: 702	
		3	-64.0649	-65.2696				
		4	-64.0966	-65.7025				
		5	-65.5495	-65.3963				
		6	-64.6864	-66.0064				
		7	-64.4113	-66.3795				
		8	-67.5873	-65.3946				
		9	-66.574	-65.1002				
		10	-64.7808	-63.0723				
12	<i>Kaempferol-3-rutinoside</i>	1	-96.6792	-81.0359			ALA A: 719 LEU A:820	ILE B: 888 LEU B: 889 LYS B: 868 VAL B: 916 VAL B: 914
		2	-92.0206	-81.2006			ASN A: 818 ARG A: 817 ASP A: 831 LEU A: 694 LYS A: 721 MET A: 769 VAL A: 702	ASP B: 1046 CYS B: 1045 ILE B: 1044
		3	-98.3471	-81.5223				
		4	-101.451	-81.1558				
		5	-90.0179	-81.6199				

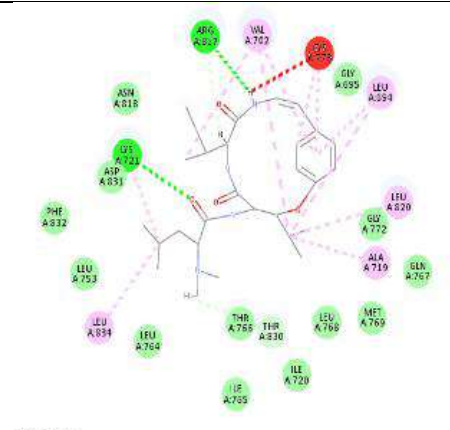
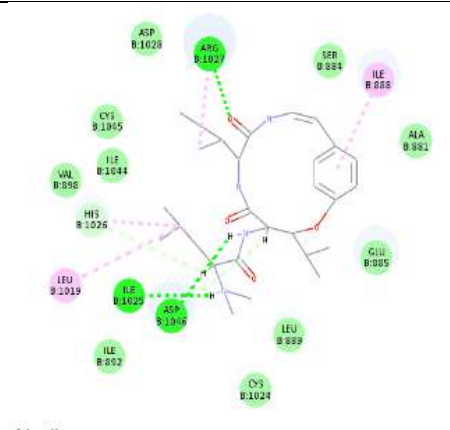
		6	-98.9981	-81.9695	 <p>Interactions:</p> <ul style="list-style-type: none"> van der Waals Conventional Hydrogen Bond Carbon-Hydrogen Bond PI-Sigma PI-Alkyl 		ALA B: 881 SER B: 884	
		7	-94.6642	-81.9707			HIS B: 1026 GLU B: 885	
		8	-96.2757	-82.0085				
		9	-95.9779	-78.5779				
		10	-99.4359	-71.3232				
13	29-Hydroxyceanothe nic acid	1	-62.2838	-70.191	 <p>Interactions:</p> <ul style="list-style-type: none"> van der Waals Conventional Hydrogen Bond Salt Bridge Alkyl Carbon-Hydrogen Bond 	CYS A: 773 LEU A: 820 LEU A: 694 VAL A: 702	CYS B: 1024 LEU B: 1019 VAL B: 899 HIS B: 1026 VAL B: 898 ILE B: 892 LEU B: 889	
		2	-65.1637	-70.9446				
		3	-65.7841	-70.518				
		4	-65.6273	-71.0135				
		5	-65.4392	-70.795				
					 <p>Interactions:</p> <ul style="list-style-type: none"> van der Waals Attractive Charge Conventional Hydrogen Bond Carbon-Hydrogen Bond Alkyl PI-Alkyl 	CYS A: 773 LEU A: 820 LEU A: 694 VAL A: 702	CYS B: 1024 LEU B: 1019 VAL B: 899 HIS B: 1026 VAL B: 898 ILE B: 892 LEU B: 889	

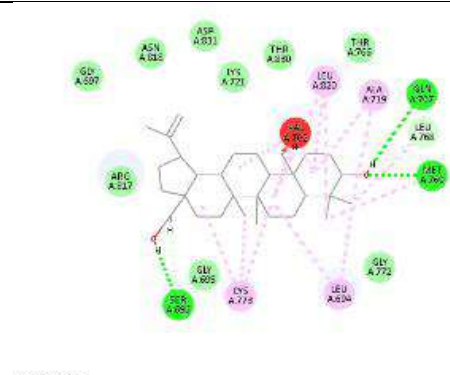
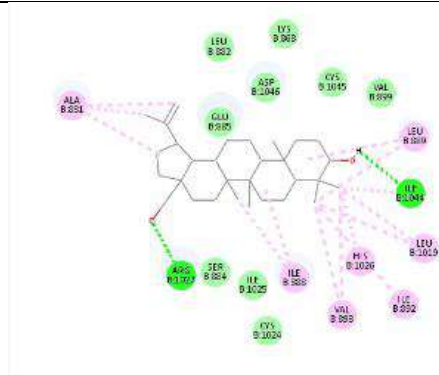
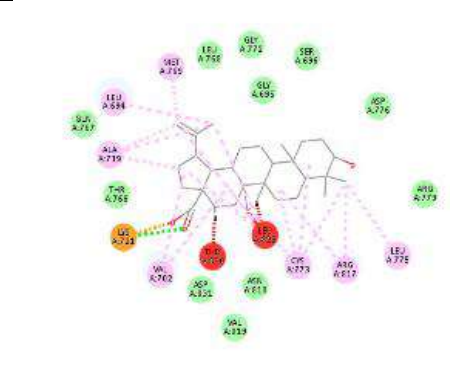
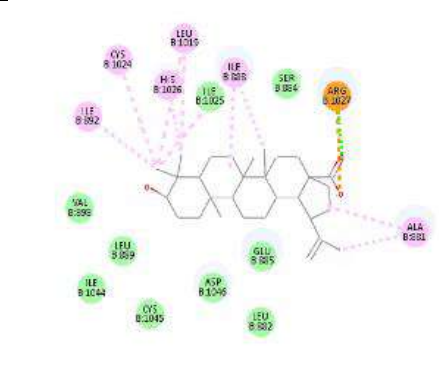
		6	-61.8453	-70.5191			LYS A: 721	SER B: 884
		7	-64.5875	-71.2725				
		8	-65.6295	-71.8428				
		9	-65.0515	-70.0557				
		10	-70.9519	-71.8839				
14	<i>Isorhamnetin</i> 3- <i>O</i> -[6- <i>P</i> - <i>coumaroyl</i>]- β - <i>D</i> glucopyranoside	1	-94.1843	-67.86			SER A: 696	GLY B: 841 ARG B: 842
		2	-89.3218	-76.6866			ALA A: 719 LEU A: 820 LEU A: 694 VAL A: 702	LEU B: 840 ASN B: 923 ASP B: 1028
		3	-89.7033	-67.6864			ASP A: 831 LYS A: 721 MET A: 769	PHE B: 1047
		4	-92.6322	-71.202			THR A: 766	ARG B: 1032 LYS B: 868 VAL B: 848
		5	-92.2492	-71.7929				ASN B: 1033
		6	-94.169	-77.4794				
		7	-99.4354	-78.4724				
		8	-98.8743	-76.6659				
		9	-95.063	-77.3537				
		10	-97.1218	-76.7542				
15	<i>Quercetin</i> 3- <i>O</i> - β - <i>D</i> glucopyranoside	1	-90.6375	-82.1864			ASN A: 818 ARG A: 817 LYS A: 831	ASP B: 1046 GLU B: 885 CYS B: 919 GLU B: 917 ILE B: 1044

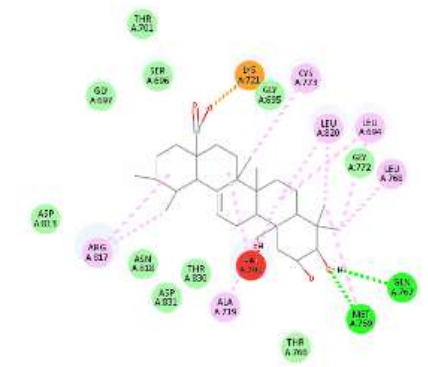
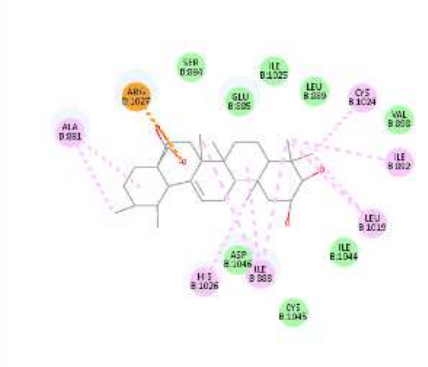


		2	-94.495	-88.3768	<p>Interactions</p> <ul style="list-style-type: none"> von der Waals Conventional Hydrogen Bond Carbon Hydrogen Bond Pi-Sigma Pi-Alkyl 	<p>Interactions</p> <ul style="list-style-type: none"> von der Waals Conventional Hydrogen Bond Carbon Hydrogen Bond Pi-Carbon Alkyl Pi-Alkyl 	721 GLY A: 700 MET A: 769 THR A: 766	LYS B:868 PHE B:918
		3	-97.6928	-82.8513			LEU A: 694	VAL B:916 VAL B:848 ALA B:866 LEU B:1035 CYS B:1045 PHE B:1047
		4	-97.2976	-82.1932			ALA A: 719 VAL A: 702	
		5	-96.1914	-87.2556				
		6	-91.5309	-82.5479				
		7	-94.5005	-84.7332				
		8	-93.7521	-83.5942				
		9	-98.8391	-82.1786				
		10	-99.3072	-81.383				
		16	<i>Quercetin 3-O-α-L-rhamnopyranoside</i>	1			-62.5748	-73.267
2	-62.0981	-71.974		ARG A: 817	HIS B: 1026 GLU B: 885			
3	-62.9055	-73.3643						
4	-62.0243	-72.7641						
5	-62.8054	-73.4887						
6	-63.8583	-72.2509						
7	-62.3402	-72.4392						
8	-62.4401	-72.2213						
9	-63.7464	-71.9854						

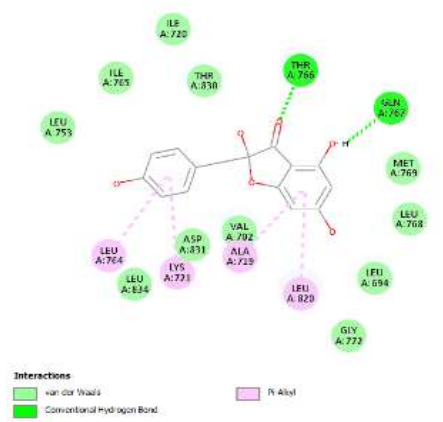
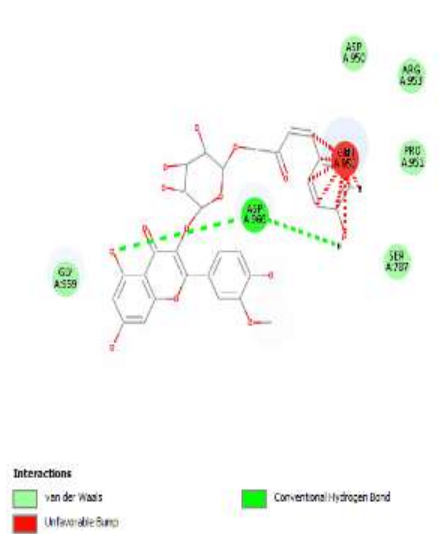
		10	-62.4672		<p>Interactions</p> <ul style="list-style-type: none"> van der Waals Attractive Charge Conventional Hydrogen Bond Alkyl 			
				-71.8779	<p>Interactions</p> <ul style="list-style-type: none"> van der Waals Carbon Hydrogen Bond Alkyl 			
17	<i>Zizyberenic acid</i>	1	-61.8626	-72.4532	<p>Interactions</p> <ul style="list-style-type: none"> van der Waals Attractive Charge Conventional Hydrogen Bond Alkyl 	ARGA: 817	LEU B:	
		2	-61.9684	-73.1799			LYS A:	
		3	-62.9595	-73.4741			721 CYS	889 ILE B:
		4	-61.841	-72.3894			A: 773	888 VAL
		5	-62.2234	-72.8737				B:
		6	-62.3306	-72.626				916 VAL
		7	-63.9997	-72.222				B:
		8	-64.2479	-72.4952				899 VAL
		9	-62.6185	-72.4685				B: 898
		10	-62.4948	-72.1486				HIS B:
							1026, GLU	
							B: 885	
18	<i>Ceanothenic acid</i>	1	-62.7768	-70.099		CYS A:	ARG B:	
						773 LEU	1027 LYS	
						A:	B: 868	
						820 LEU		

							A:694 VAL A: 702	
		2	-61.5657	-69.9324			LYS A: 721	HIS B: 1026 VAL B: 898 VAL B: 899 LEU B: 889
		3	-64.6444	-70.0756			LYS A: 721	ARG B: 1027
		4	-65.5028	-69.921				
		5	-62.1194	-70.1319				
		6	-63.1049	-70.1574				
		7	-65.342	-70.1583				
		8	-63.9933	-70.0934				
		9	-60.6763	-69.5346				
		10	-65.7592	-69.375				
19	<i>Isorhamnetin 3-O-rutinoside</i>	1		-76.2502			LEU A:820 ALAA:719 LYS A:721	LYS B: 868 GLU B: 885
			-103.678				VAL A:702	
		2	-104.705	-80.6413			MET A:769 LEU A:694 ASN A:818 ASP A:831	LEU B: 882 ALA B: 881 LEU B: 889 CYS B: 1045 VAL B: 899
		3		-77.9292			ARG A:817	
		4	-103.509	-76.227				
		5		-73.5739				
			-103.268					
		6		-81.2263				ASP B: 1046
			-101.867					

		9	-63.2424	-68.0841				
		10	-63.7382	-67.6861				
21	<i>Adouetine X</i>	1	-75.7101	-89.4698	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Conventional Hydrogen Bond Carbon Hydrogen Bond Unfavorable Donor-Donor Alkyl Pi-Alkyl 	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Conventional Hydrogen Bond Carbon Hydrogen Bond Alkyl Pi-Alkyl 	ARG A: 817 LYS A: 721	ARG B:1027 ILE B: 1025 ASP B:1046
		2	-80.8638	-77.0234			THR A: 830	LEU B:1019 ILE B:888
		3	-70.04	-88.275			ARG A:817	HIS B:1026
		4	-71.0035	-85.7145			ALA A: 719 LEU A: 820 LEU A: 694 LEU A: 834 VAL A: 702	
		5	-69.5667	-85.1106				
		6	-68.6836	-82.4631				
		7	-75.0857	-84.3491				
		8	-71.5003	-84.9554				
		9	-71.1606	-81.4203				
		10	-71.0804	-83.0354				
22	<i>Betulin</i>	1	-71.5164	-67.5525	ALA A:719 LEU A: 820 LEU A:694 CYS A: 773	ARG B: 1027 ILE B:1044		
		2	-71.7878	-67.8553	VAL A: 702			

		3	-73.2387	-67.2655	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Unfavorable Bump Conventional Hydrogen Bond Carbon Hydrogen Bond Alkyl 	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Conventional Hydrogen Bond Alkyl Pi-Alkyl 	LEU A: 768	ALA B:				
		4	-71.5011	-68.2996			MET A: 769 GLN A: 767 SER A: 696	881 LEU B: 889 LEU B: 1019 HIS B: 1026 ILE B: 892 VAL B: 898 ILE B: 888				
		5	-73.1186	-67.2935								
		6	-70.7842	-68.9487								
		7	-72.2218	-67.5662								
		8	-72.2062	-67.7237								
		9	-70.8184	-68.7823								
		10	-72.0121	-67.531								
		23	<i>Betulinic acid</i>	1			-67.6676	-71.1653	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Unfavorable Bump Attractive Charge Conventional Hydrogen Bond Alkyl 	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Attractive Charge Conventional Hydrogen Bond Alkyl Pi-Alkyl 	LYS A: 721	ARG B: 1027
				2			-68.4486	-72.5581			LEU A: 820 THR A: 830	ILE B: 888 LEU B: 1019 HIS B: 1026 CYS B: 1024 ILE B: 892 ALA B: 881
3	-66.8775			-72.9659	LEU A: 775 ARG A: 817 CYS A:773 VAL A:702 ALA A: 719 LEU A: 694 MET A: 769							

27	<i>Corosolic acid</i>	10	-83.3826	-85.6531	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Unfavorable Bump Salt Bridge Conventional Hydrogen Bond Alkyl 	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Salt Bridge Conventional Hydrogen Bond Alkyl Pi-Alkyl 	VAL A: 702	ARG B: 1027
		1	-67.9092	-66.6492			GLN A: 767 MET A: 769	ALA B: 881 HIS B: 1026 ILE B: 888
		2	-67.8021	-66.5047			ARG A: 817 ALA A: 719	LEU B: 1019 LEU B: 892 CYS B: 1024
		3	-67.8114	-63.1136			LEU A: 768 LEU A: 694	LEU A: 820 CYS A: 773
		4	-64.282	-69.0099			LYS A: 721	
		5	-65.5333	-60.4023				
		6	-66.555	-64.5637				
		7	-60.8429	-67.4118				
		8	-62.6081	-68.4156				
		9	-63.6732	-70.4398				
10	-63.977	-73.7348						
28	<i>Maesopsin</i>	1	-85.4452	-78.5049	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Unfavorable Bump Salt Bridge Conventional Hydrogen Bond Alkyl 	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Salt Bridge Conventional Hydrogen Bond Alkyl Pi-Alkyl 	LEU A: 820 ALA A: 719	PHE B: 1047
		2	-85.2406	-80.5067			LYS A: 721 LEU A: 764 LEU A: 764	GLU B: 917 ASP B: 1046 LYS B: 1045
		3	-85.2331	-80.8398			THR A: 766 GLN A: 767	868 ALA B: 866
		4	-85.4479	-77.6907				LEU B: 1035 CYS B: 919
		5	-85.3693	-80.5155				CYS B: 1045 VAL B: 1045

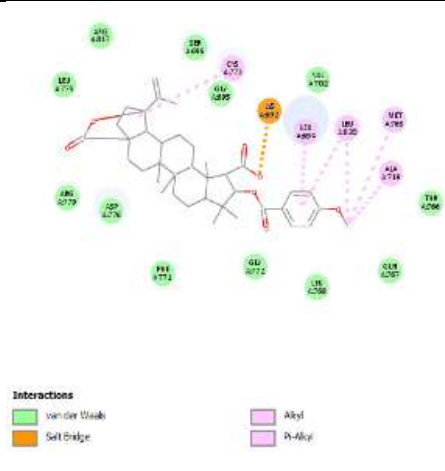
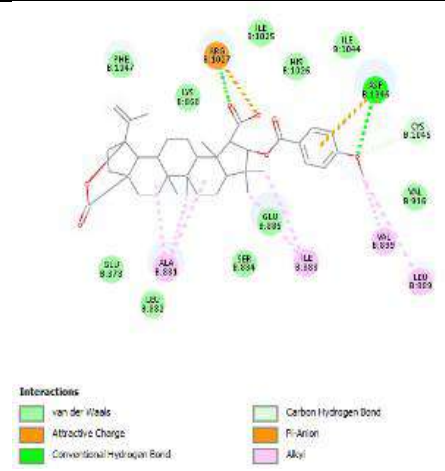
					 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Conventional Hydrogen Bond Pi-Alkyl 				
		6	-85.4493	-80.6725					
		7	-85.4199	-78.8763					
		8	-85.2116	-79.6688					
		9	-85.3704	-78.1647					
		10	-85.2596	-77.2723					
29	<i>Isorhamn etin3-O- (6''-O-(Z)-p-coumaroyl)-β-D-glucopyranoside</i>	1	-87.8293	-89.148	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Conventional Hydrogen Bond Carbon Hydrogen Bond Pi-Cation Pi-Sigma Pi-Alkyl Unfavorable Bump 				
		2	-82.94	-78.808					
		3	-90.2937	-89.6252					
		4	-79.6792	-88.2339					
		5	-89.4271	-89.4431					
		6	-91.0269	-89.3831					
		7	-78.7192	-81.3176					
		8	-77.7314	-85.5314					
		9	-76.8687	-83.7469					
		10	-77.6259	-82.8692					
30	<i>Alphitexolide</i>	1	-65.6741	-74.7165					

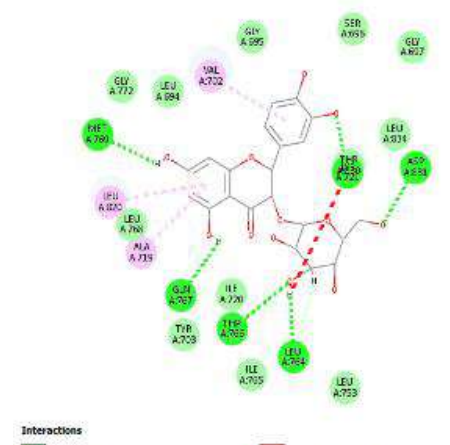
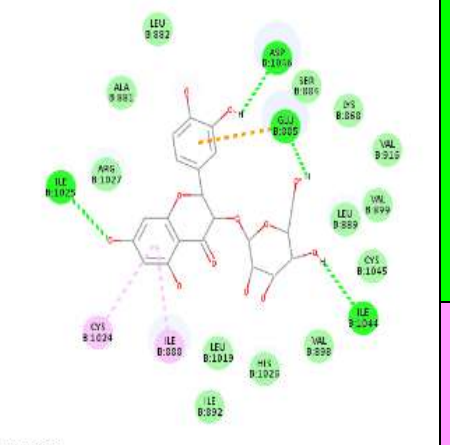
B:
916 | VAL
B: 848

GLN A: 952
ASP B:1046
ASP B:1028
ILE B:1025
HIS B:1026 |
ARG B:
1027
ALA B:881

ASP A: 960
LYS B:868
LEU B:889
ALA B:881

LYS A: 692
ARG B:
1027

		2	-62.7882	-73.8794	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Self Bridge Alkyl Pi-Alkyl 	 <p>Interactions</p> <ul style="list-style-type: none"> van der Waals Attractive Charge Conventional Hydrogen Bond Carbon Hydrogen Bond Pi-Anion Alkyl 	ALA A: 719 MET A: 769 LEU A: 820 LEU A: 694 CYS A: 773	ASP B: 1046 CYS B: 1045 ALA B: 881 ILE B: 888 VAL B: 899 LEU B: 889
		3	-65.8147	-74.2504				
		4	-64.9095	-74.4416				
		5	-62.5045	-73.6452				
		6	-62.8695	-73.7185				
		7	-64.9855	-73.8383				
		8	-65.3226	-73.7268				
		9	-59.9774	-72.3338				
		10	-60.1943	-72.3205				
		31	Uridine	1				
2	-80.2845			-69.849				
3	-81.2921			-69.8069				
4	-80.8568			-69.6303				
5	-81.44			-70.0478				
6	-79.8883			-70.0753				
7	-76.4837			-69.627				
8	-76.8318			-69.8913				

		9	-76.7153	-69.8692			
		10	-76.2269	-69.5925			
32	<i>3-O-beta-D-Galactopyranosyl-quercetin</i>	1	-94.0572	-80.9045			
		2	-93.2175	-80.2223		MET A: 769 THR A: 721 ASP A: 831 GLN A: 767 THR A: 766 LEU A: 764	GLU B: 885 ILE B: 1044 ILE B:1025 AS P B: 1046
		3	-94.3898	-80.5791		ALA A: 719 LEU A: 820 VAL A: 702	ILE B: 888 CYS B: 1024
		4	-94.1567	-80.0277		LYS A: 721	GLU B: 885
		5	-94.0227	-79.423			
		6	-93.9333	-79.019			
		7	-94.2703	-80.7465			
		8	-94.9645	-79.6008			
		9	-93.633	-79.2735			
		10	-92.826	-79.1919			
33	<i>β-Sitosterol</i>	1	-93.6912	-84.8849		ALA A: 719 LYS A: 721 LEU A:764 LEU A: 753 MET A: 742 LEU A: 820	ILE B:1025
		2	-91.7533	-81.5029			VAL B:899
		3	-91.8599	-81.338			ALA B:866 VAL B: 916 VAL B:848 LYS B:868 PHE B:1047

