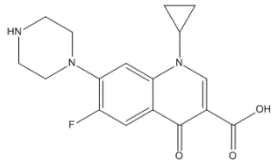
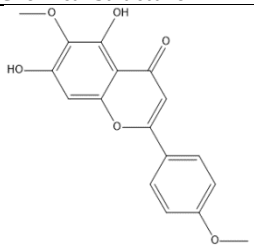
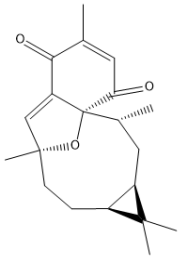
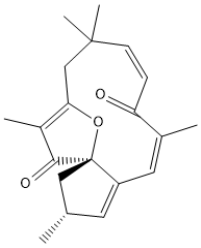
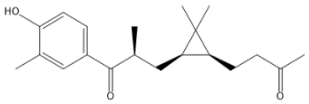
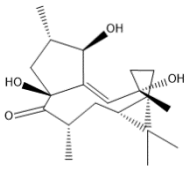
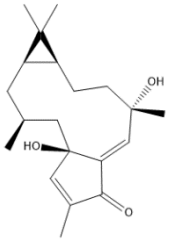
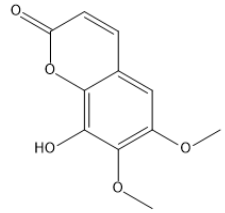
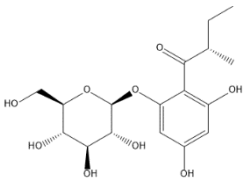
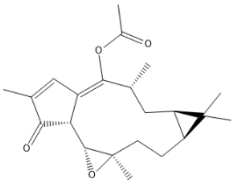
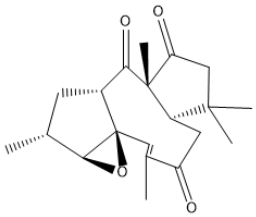
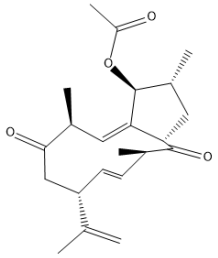
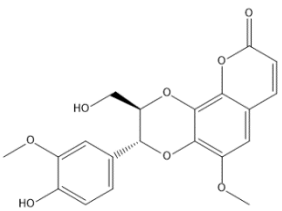
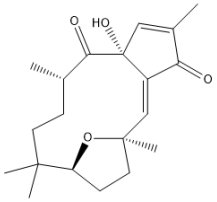
SUPPLEMENTARY DATA

SUPPLEMENTARY TABLES

S1: Structures of yodium leaf active compounds and comparative drugs

No.	Compounds	Chemical structure	No.	Compounds	Chemical structure
1.	Ciprofloxacin Pubchem CID: 2764		8.	C7 (Pectolinarigenin Pubchem CID: 5320438)	
2.	C1 (Multifidone Pubchem CID: 25181402)		9.	C8 (Jatrophone Pubchem CID: 5281373)	
3.	C2 (Multidione Pubchem CID: 101477139)		10.	C9 (Multifidanol Pubchem CID: 57390908)	
4.	C3 (Multifolone Pubchem CID: 102025875)		11.	C10 (Fraxidin Pubchem CID: 3083616)	
5.	C4 (Multifidol Glucoside Pubchem CID: 14412552)		12.	C11 (Jatrothrin Pubchem CID:)	
6.	C5 (Citlalitrione Pubchem CID: 6449926)		13.	C12 (Jatrophenone Pubchem CID: 15923201)	
7.	C6 (cleomiscosin A Pubchem CID: 442510)		14.	C13 (Japodagrone Pubchem CID: 101437129)	

S2: Parameters of Lipinski's rule of five

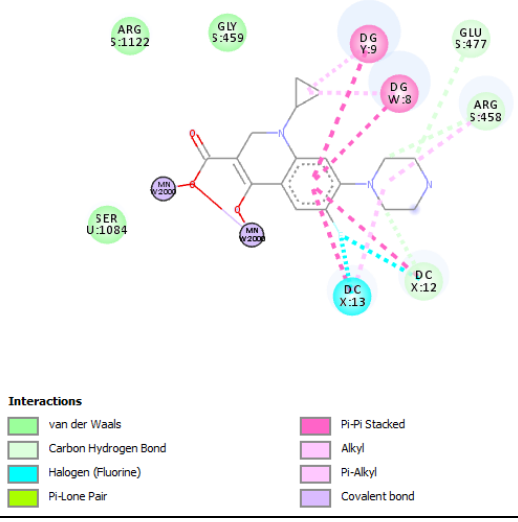
No	Compounds	Hydrogen donor	Hydrogen acceptor	Molecular weight	Log P	Eligible/Not eligible
1	Ciprofloxacin	2	6	331	1.368900	Eligible
2	C1 (Multifidone)	0	3	314	3.630799	Eligible
3	C2 (Multidione)	1	3	316	4.550920	Eligible
4	C3 (Multifolone)	2	3	318	3.406199	Eligible
5	C4 (Multifidol Glucoside)	6	9	372	-0.494700	Eligible
6	C5 (Citlalitrione)	0	4	330	2.889700	Eligible
7	C6 (cleomiscosin A)	2	8	386	2.29	Eligible
8	C7 (Pictolinarigenin)	2	6	314	2.025	Eligible
9	C (Jatrophone)	0	3	312	4.02	Eligible
10	C9 (Multifidanol)	1	4	336	4.6	Eligible
11	C10 (Fraxidin)	1	5	222	1.167	Eligible
12	C11 (Jatrothrin)	5	6	312	-0.053	Eligible
13	C12 (Jatrophenone)	0	4	358	4.06	Eligible
14	C13 (Japodagrone)	1	4	332	3.135	Eligible

S3: ADME prediction profile and toxicity

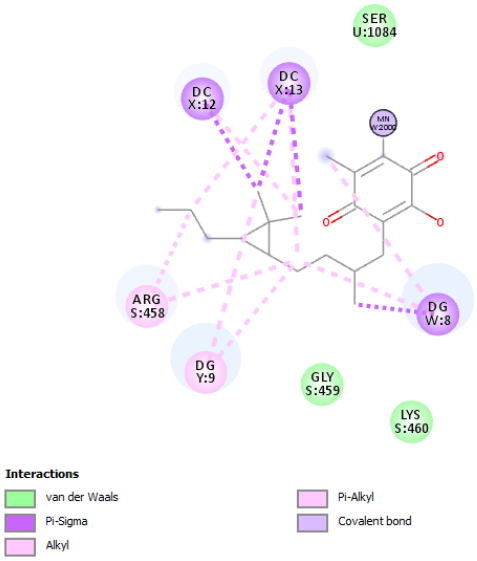
Compounds	Absorption		Distribution		Metabolism				Toxicity
	HIA (%)	Caco-2 (nm/sec)	BBB	PPB (%)	Cyp3A4 inhibition	Cyp2D6 inhibition	Cyp2C9 inhibition	Cyp2C19 inhibition	Ames test
Ciprofloxacin	96.27	21.28	0.01	31.05	Non-Inhibitor	Non-Inhibitor	Non-Inhibitor	Non-Inhibitor	Mutagen
C1 (Multifidone)	98.00	41.96	0.85	100.00	Inhibitor	Non-Inhibitor	Inhibitor	Non-Inhibitor	Mutagen
C2 (Multidione)	95.47	26.72	1.38	100.00	Inhibitor	Non-Inhibitor	Inhibitor	Non-Inhibitor	Nonmutagen
C3 (Multifolone)	92.52	25.49	3.93	100.00	Inhibitor	Non-Inhibitor	Inhibitor	Non-Inhibitor	Nonmutagen
C4 (Multifidol Glucoside)	23.63	2.51	0.04	59.30	Inhibitor	Non-Inhibitor	Inhibitor	Inhibitor	Mutagen
C5 (Citlalitrione)	98.13	23.9	1.47	81.79	Inhibitor	Non-Inhibitor	Inhibitor	Non-Inhibitor	Mutagen
C6 (cleomiscosin A)	93.81	17.77	0.02	83.40	Non-Inhibitor	Non-Inhibitor	Inhibitor	Inhibitor	Mutagen
C7 (Pictolinarigenin)	93.37	8.37	0.06	87.68	Inhibitor	Non-Inhibitor	Inhibitor	Inhibitor	Mutagen
C8 (Jatrophone)	97.78	50.36	0.84	98.63	Inhibitor	Non-Inhibitor	Inhibitor	Non-Inhibitor	Mutagen
C9 (Multifidanol)	87.33	19.97	1.68	97.93	Inhibitor	Non-Inhibitor	Inhibitor	Non-Inhibitor	Non-mutagen
C10 (Fraxidin)	93.30	0.29	0.73	57.04	Non-Inhibitor	Non-Inhibitor	Inhibitor	Inhibitor	Mutagen
C11 (Jatrothrin)	98.26	43.74	1.42	96.42	Inhibitor	Non-Inhibitor	Inhibitor	Non-Inhibitor	Mutagen
C12 (Jatrophenone)	98.40	33.21	0.03	95.34	Inhibitor	Non-Inhibitor	Inhibitor	Inhibitor	Mutagen
C13 (Japodagrone)	95.98	14.95	0.84	96.03	Inhibitor	Non-Inhibitor	Inhibitor	Non-Inhibitor	Non-mutagen

[a]Blood-brain barier (BBB): high absorption (C_{br}/C_{bl}>2.0), middle absorption (C_{br}/C_{bl} = 2.0-0.1), and low absorption ((C_{br}/C_{bl}<1.0), [b]Protein-plasma binding (PPB): strongly bound (>90%), and weakly bound (<90%), [c]P_{Caco-2} (nm/sec): low permeability (<4), middle permeability (4-70), high permeability (>70), [d]Human intestinal absorption (HIA), poorly absorbed (0-20%), moderately absorbed (20-70%), well absorbed (70-100%)

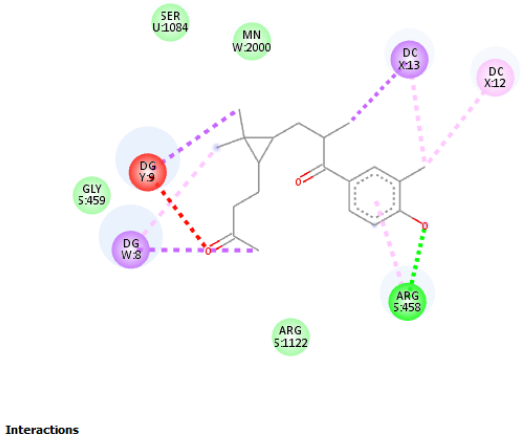
S4: Interaction of amino acids with receptors at active site A

Compounds	Interaction Images
Ciprofloxacin A	

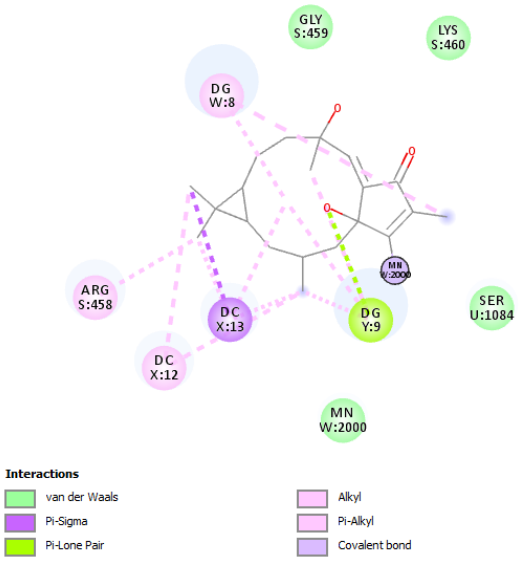
C1 (Multifidone)



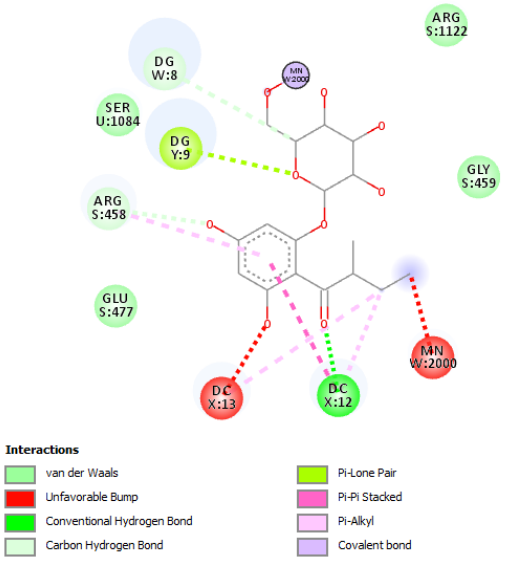
C2 (Multidione)



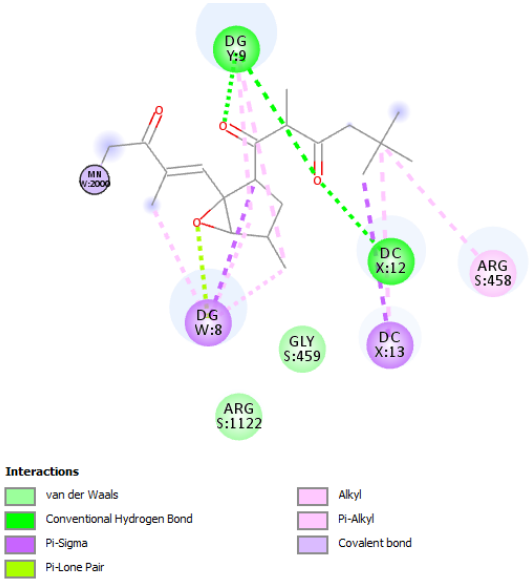
C3 (Multifolone)



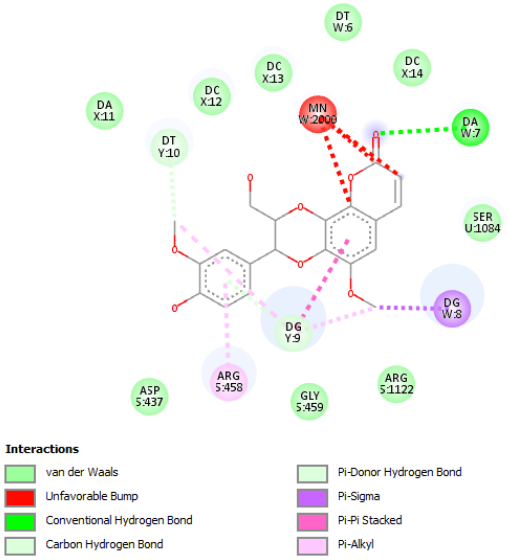
C4 (Multifidol Glucoside)



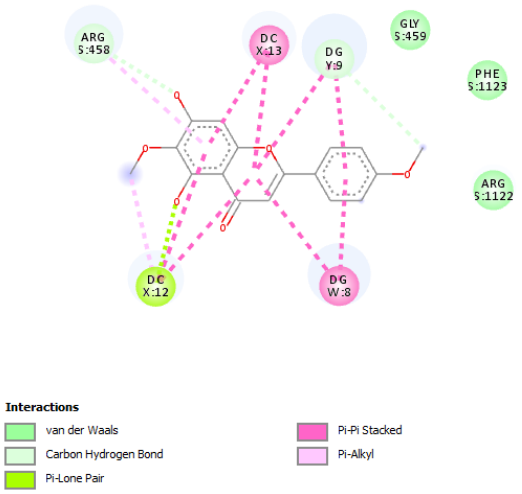
C5 (Citlalitrione)



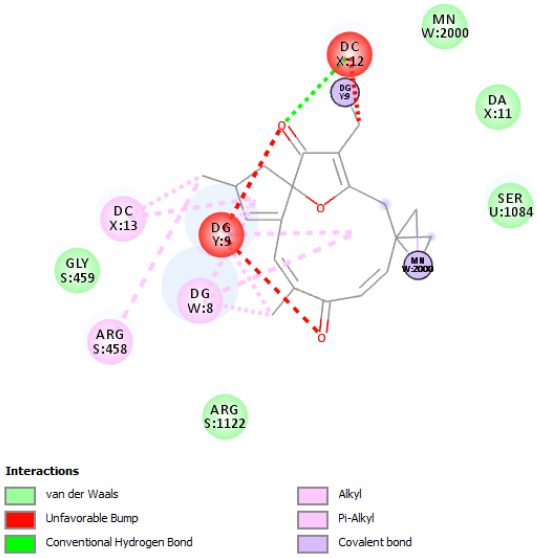
C6 (Cleomiscosin A)



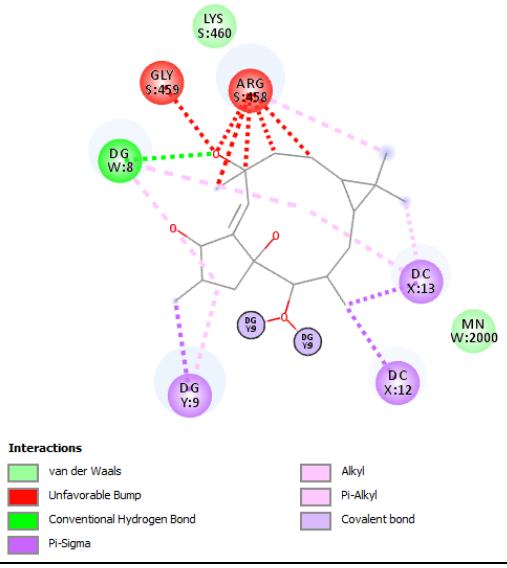
C7 (Pictolinarigenin)



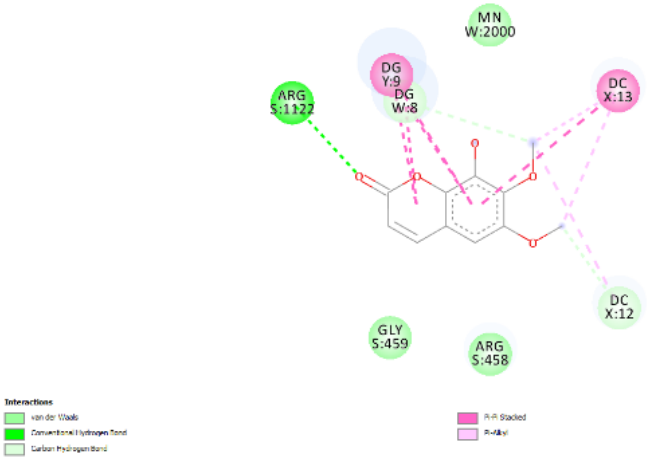
C8 (Jatrophone)



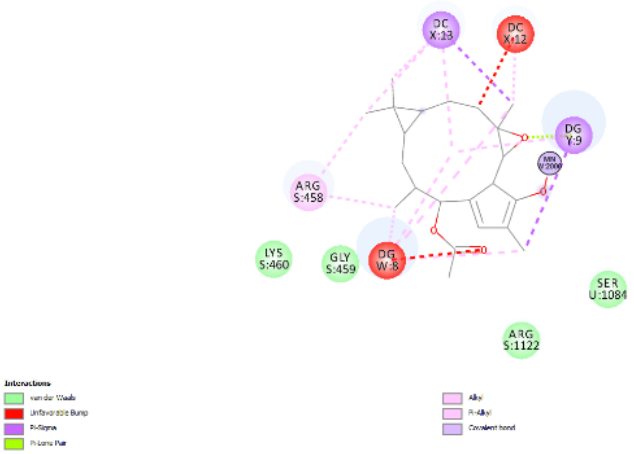
C9 (Multifidanol)



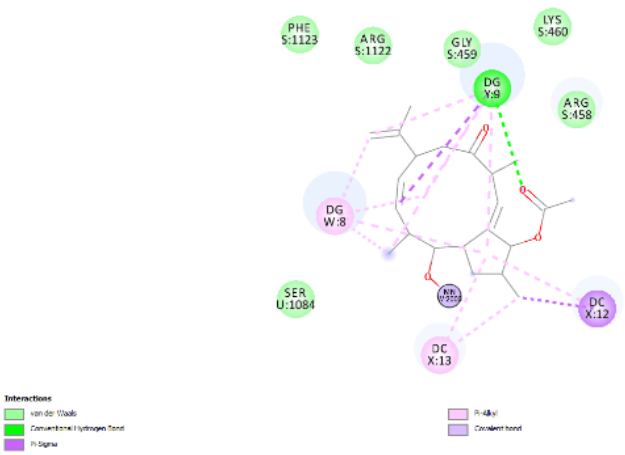
C10 (Fraxidin)



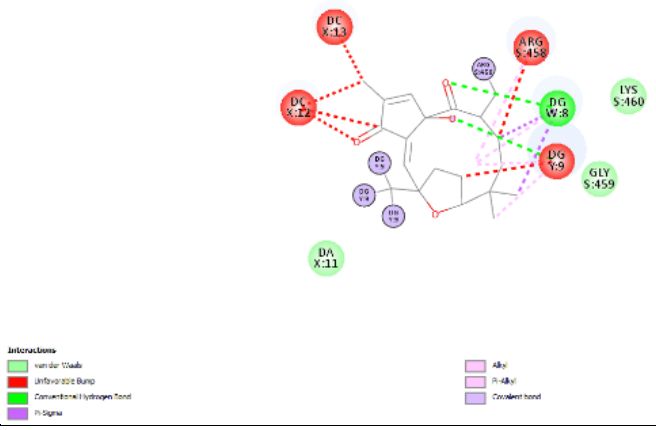
C11 (Jatrothrin)



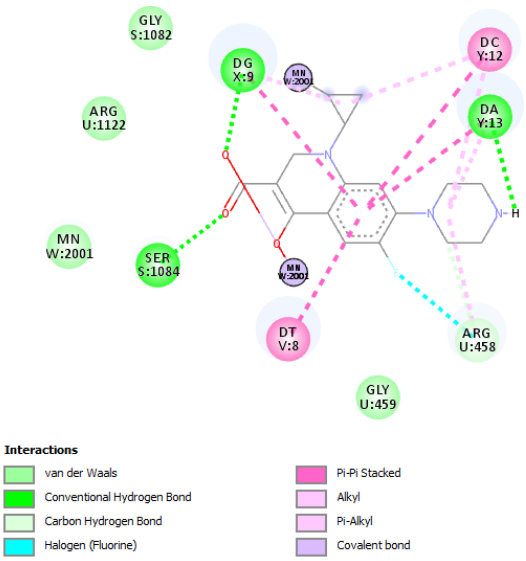
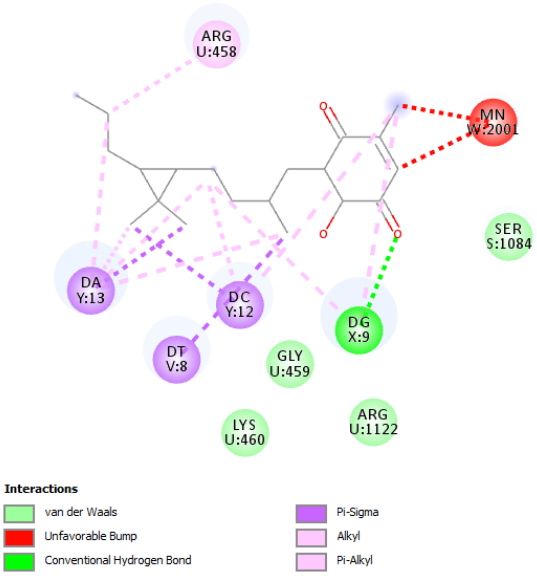
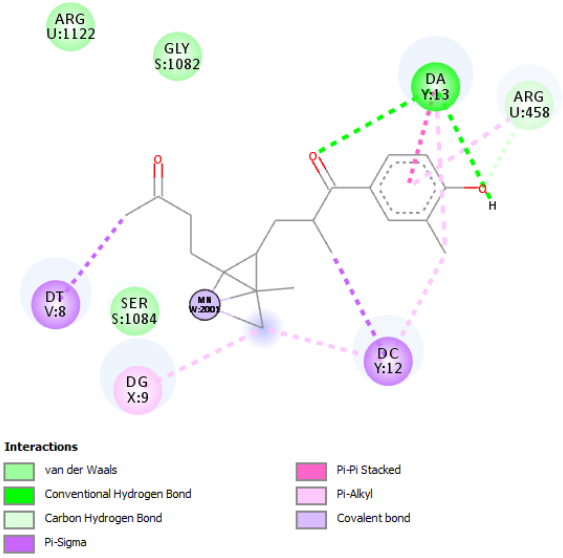
C12 (Jatrophenone)



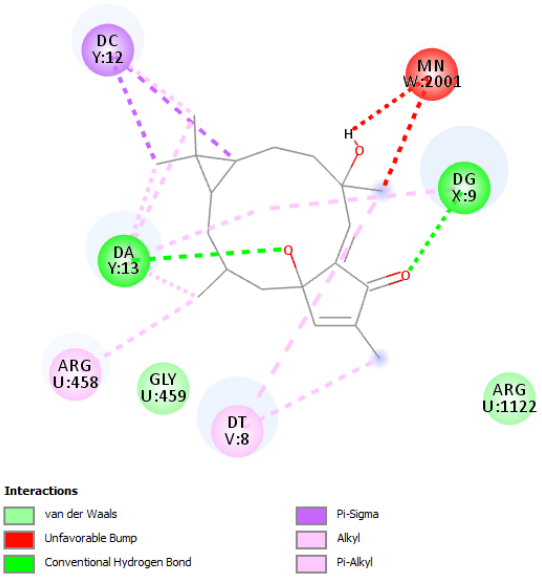
C13 (Japodagrone)



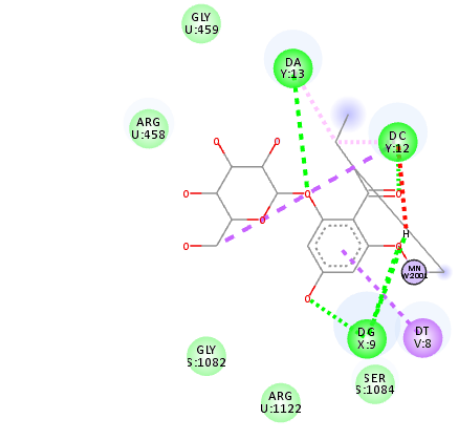
S5: Interaction of amino acids with receptors at active site B

Compounds	Interaction images
Ciprofloxacin B	
C1 (Multifidone)	
C2 (Multidione)	

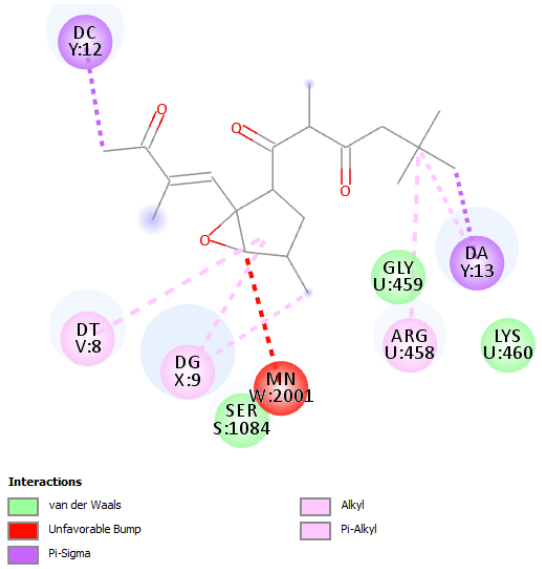
C3 (Multifolone)



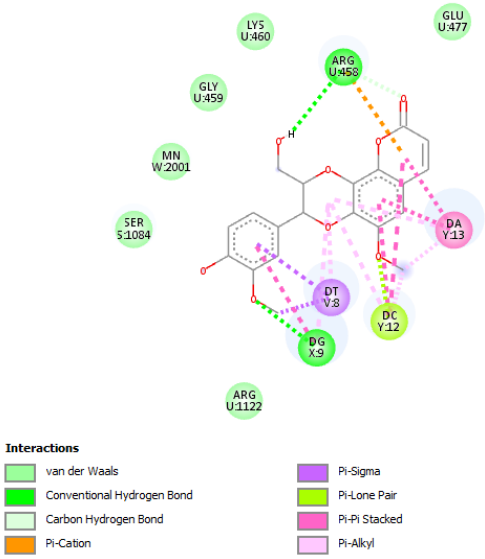
C4 (Multifidol Glucoside)



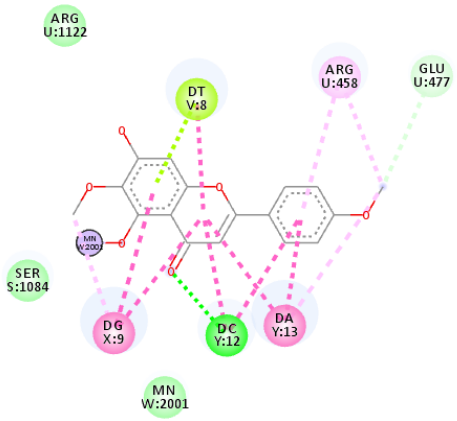
C5 (Citlalitrione)



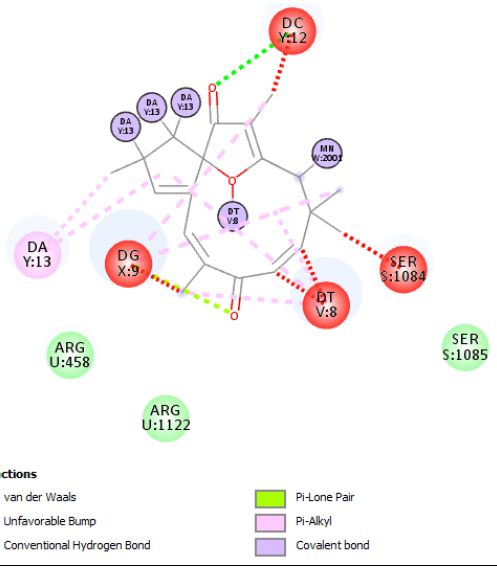
C6 (cleomiscosin A)



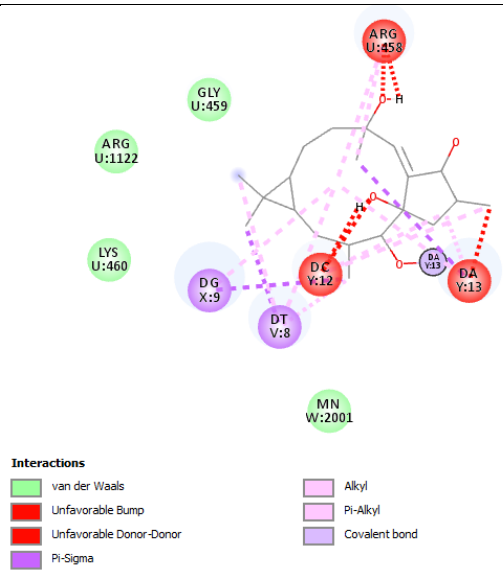
C7 (Pictolinarigenin)



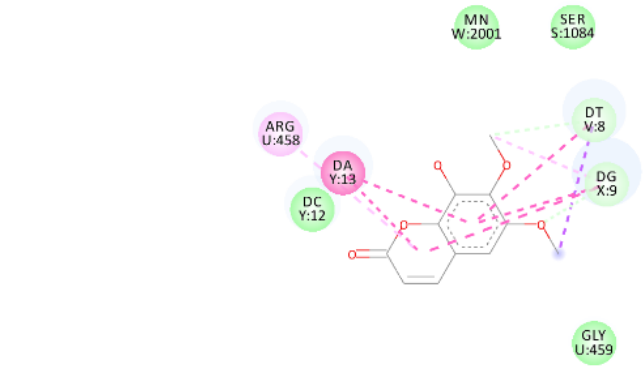
C8 (Jatrophone)



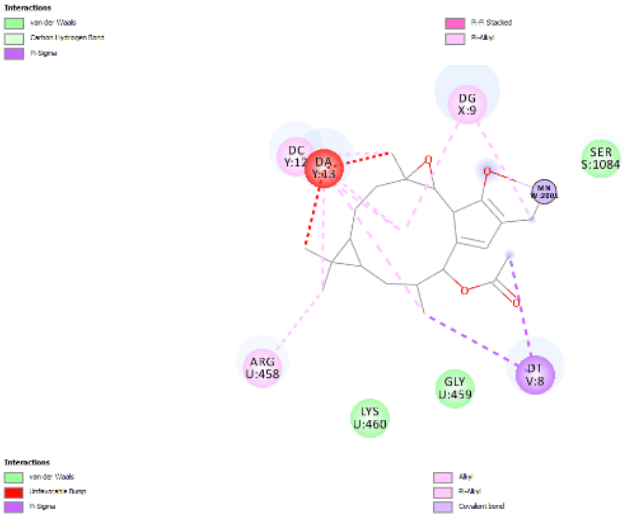
C9 (Multifidanol)



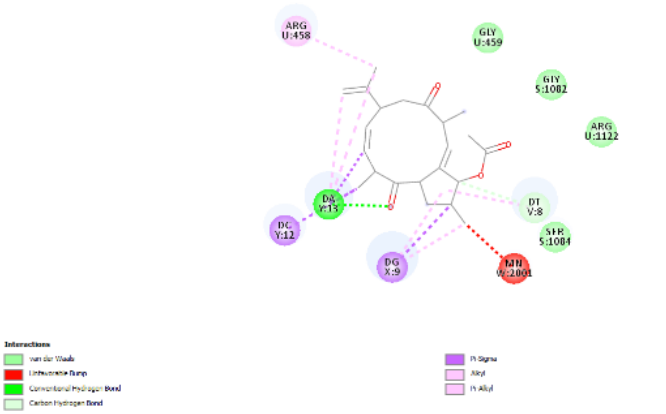
C10 (Fraxidin)



C11 (Jatrothrin)



C12 (Jatrophenone)



C13 (Japodagrone)