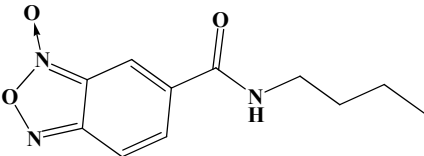
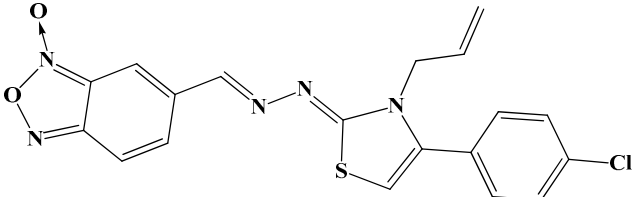
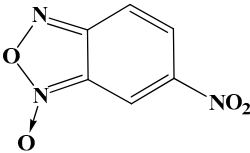
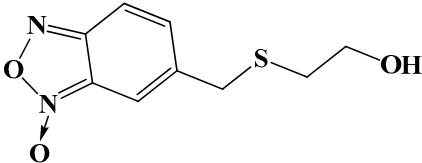
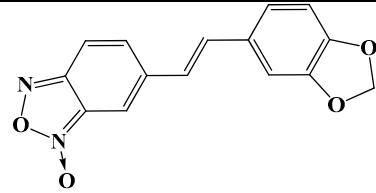
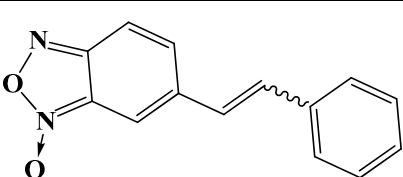
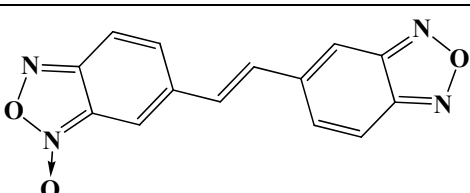
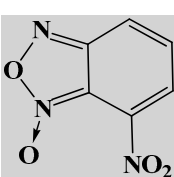
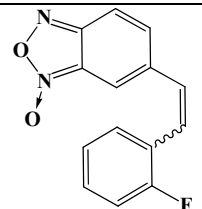
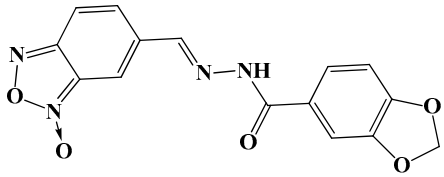
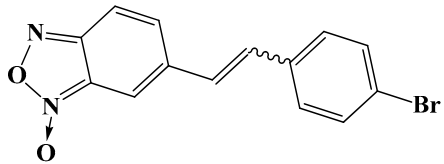
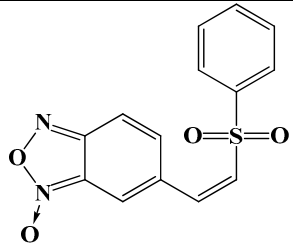
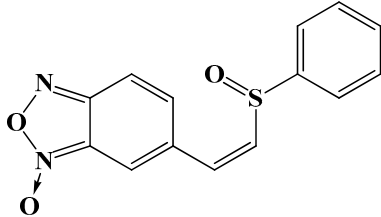
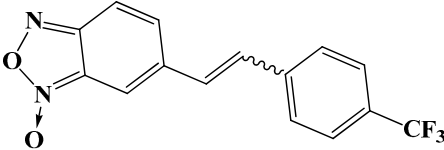
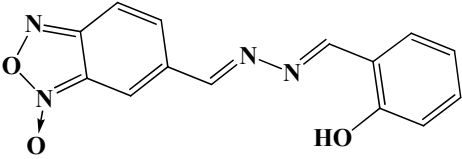


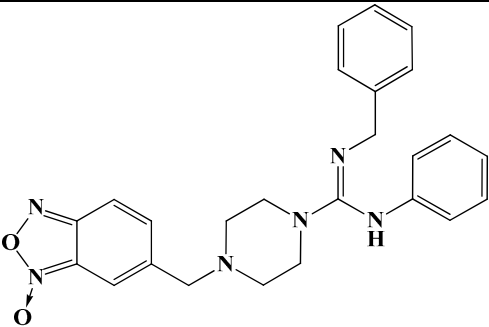
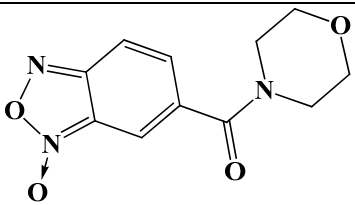
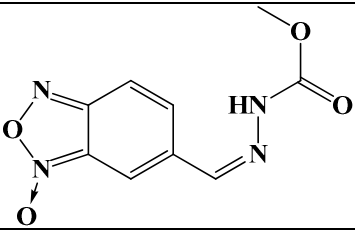
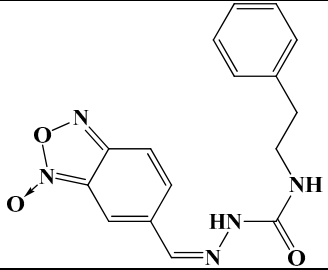
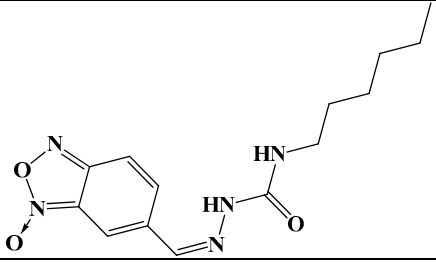
Table S1. Chemical structure of compounds used in primary screening.

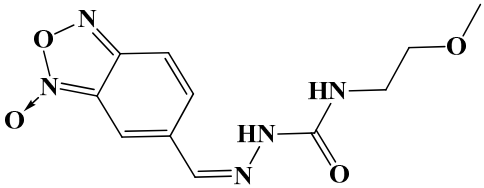
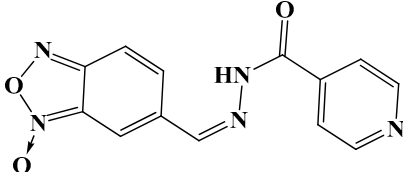
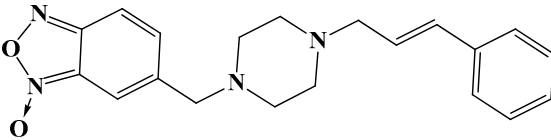
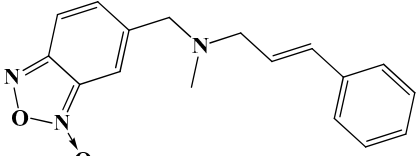
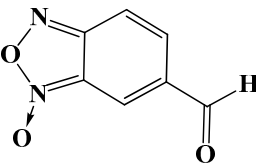
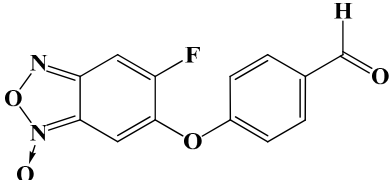
N°	Chemotype	<i>Rm</i> TIM %inhibition at 100μM	BME26 %inhibition at 100μM
Benzofuroxans			
1		0	Nd
2		0	Nd
3		0	Nd
4		0	Nd

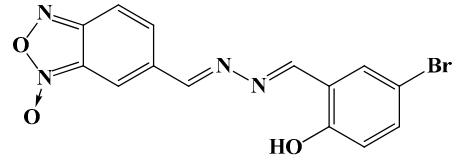
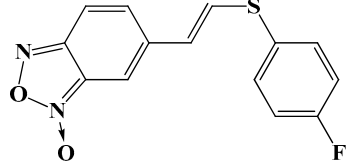
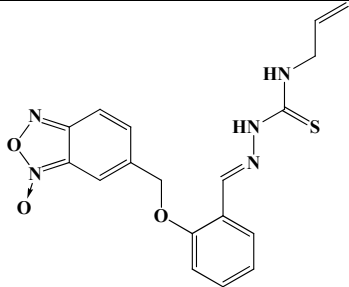
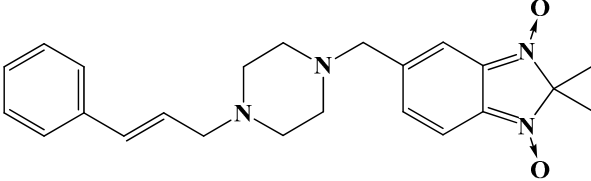
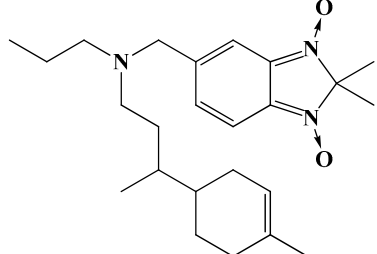
5	Chemical structure of 4-(4-cyanophenyl)-2-(1,2,4-oxadiazol-5-yl)but-3-ene. It features a 1,2,4-oxadiazole ring connected at its 5-position to a propenyl chain, which is further connected to a 4-cyanophenyl group.	0	Nd
6	Chemical structure of 4-(4-(4-oxo-4-oxophenyl)but-3-en-1-yl)-1,2,4-oxadiazole. It consists of a 1,2,4-oxadiazole ring linked at the 5-position to a propenyl chain, which is connected to a 4-oxo-4-oxophenyl group.	0	Nd
7	Chemical structure of 4-(bromomethyl)-2-(1,2,4-oxadiazol-5-yl)benzene. It shows a benzene ring with a 1,2,4-oxadiazole group at the 2-position and a bromomethyl group at the 4-position.	0	Nd
8	Chemical structure of 4-(4-methoxy-4-oxobut-3-en-1-yl)-2-(1,2,4-oxadiazol-5-yl)benzene. It features a benzene ring with a 1,2,4-oxadiazole group at the 2-position and a (4-methoxy-4-oxobut-3-en-1-yl) group at the 4-position.	0	Nd
9	Chemical structure of 4-(4-formylphenoxy)-2-(1,2,4-oxadiazol-5-yl)benzene. It consists of a benzene ring with a 1,2,4-oxadiazole group at the 2-position and a (4-formylphenoxy) group at the 4-position.	0	Nd
10	Chemical structure of 4-(thiophen-2-yl)-2-(1,2,4-oxadiazol-5-yl)but-3-ene. It features a 1,2,4-oxadiazole ring connected at its 5-position to a propenyl chain, which is further connected to a thiophen-2-yl group.	0	Nd

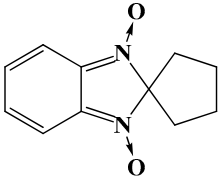
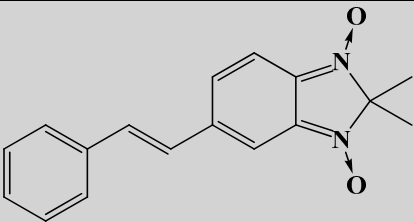
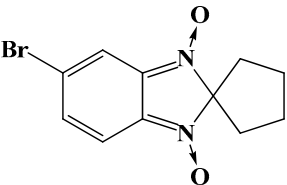
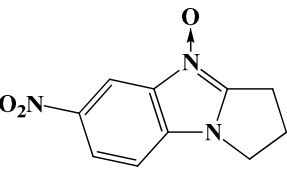
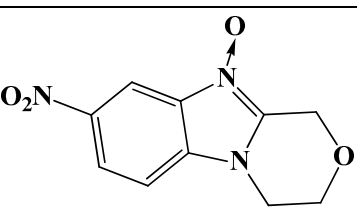
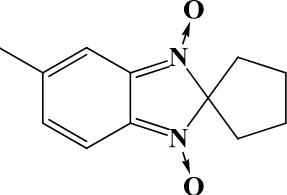
11		0	Nd
12		0	Nd
13		0	Nd
14		87	95
15		0	Nd
16		0	Nd

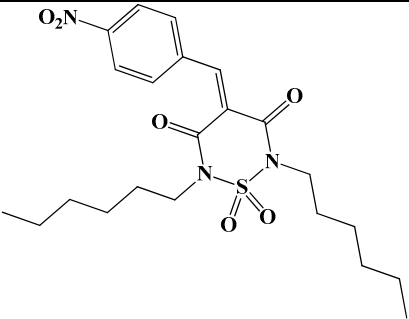
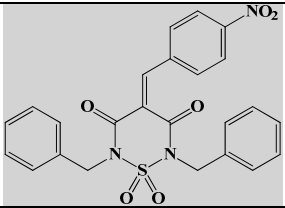
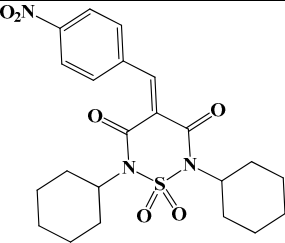
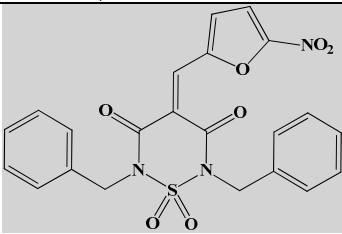
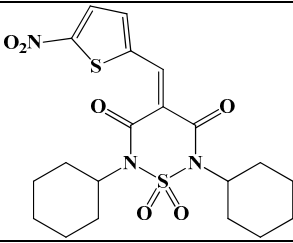
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18		0	Nd
19		0	Nd
20		0	Nd
21		0	Nd

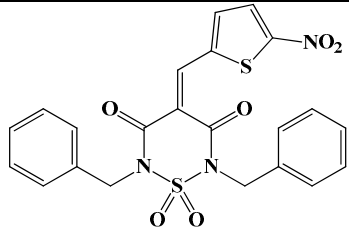
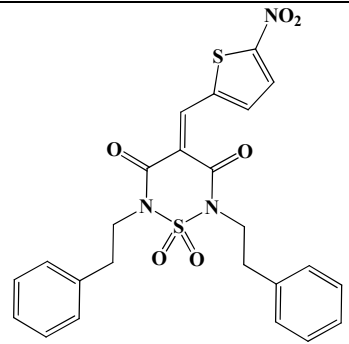
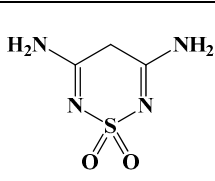
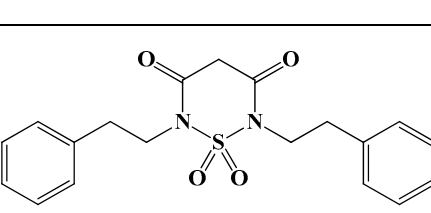
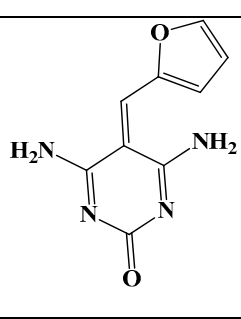
22		0	Nd
23		0	Nd
24		0	Nd
25		0	Nd
26		0	Nd

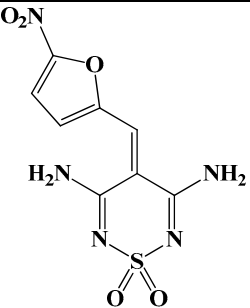
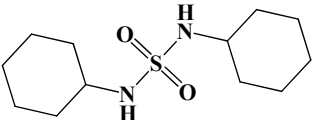
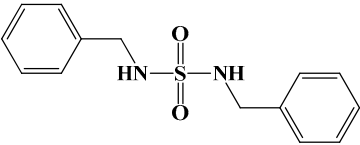
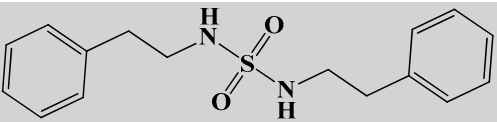
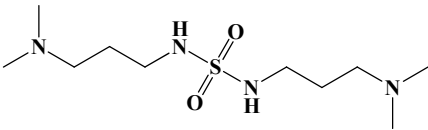
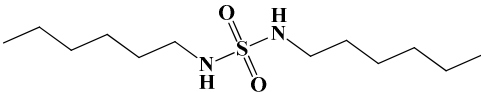
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28	 <chem>O=C1N=CN=CN=C1N=Nc2ccc3nc4ocnc4nc32</chem>	0	Nd
29	 <chem>C1CCN(CC1)CC/C=C/c2ccccc2</chem>	0	Nd
30	 <chem>CN(C)CC/C=C/c1ccccc1</chem>	0	Nd
31	 <chem>O=Cc1ccc2nc3ocnc3nc2c1</chem>	0	Nd
32	 <chem>O=Cc1ccc(Oc2cc(F)cc3nc4ocnc4nc32)cc1</chem>	0	Nd

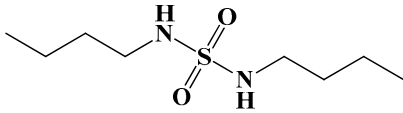
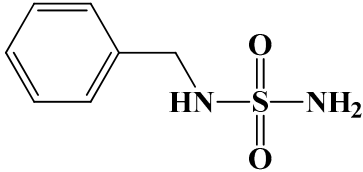
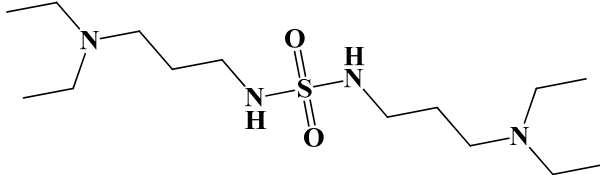
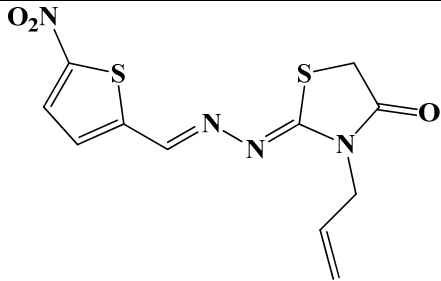
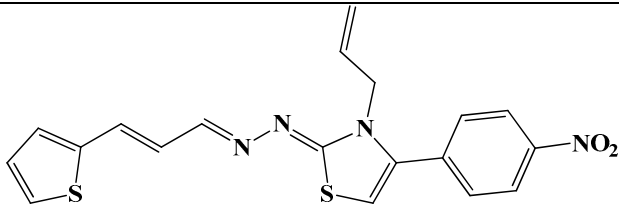
33		0	Nd
34		0	Nd
35		0	Nd
Benzimidazoles			
36		0	Nd
37		0	Nd

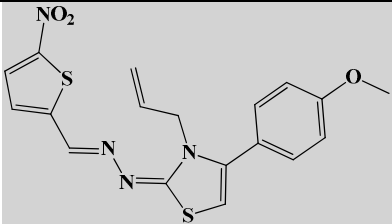
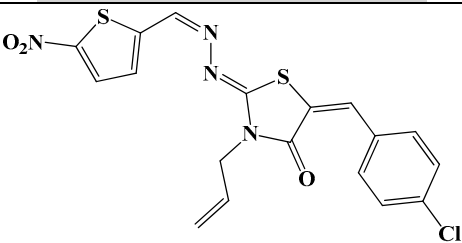
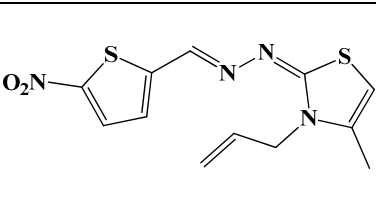
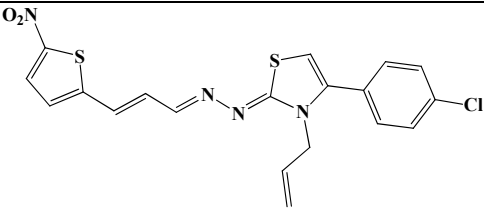
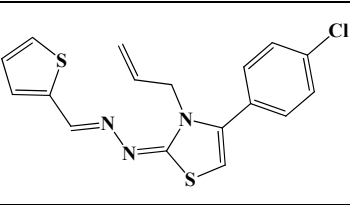
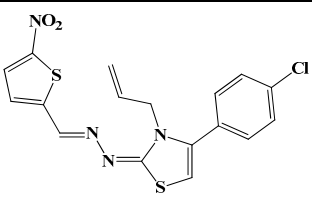
38		0	Nd
39		70	Nd
40		0	Nd
41		0	Nd
42		0	Nd
43		0	Nd

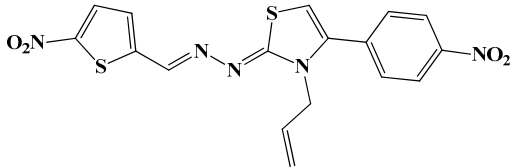
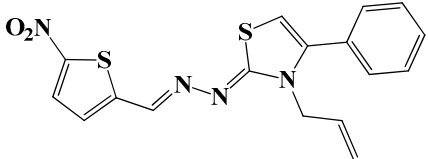
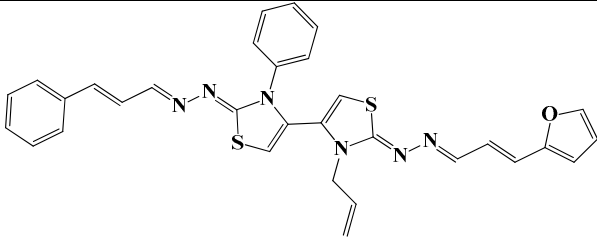
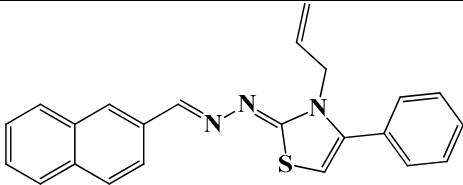
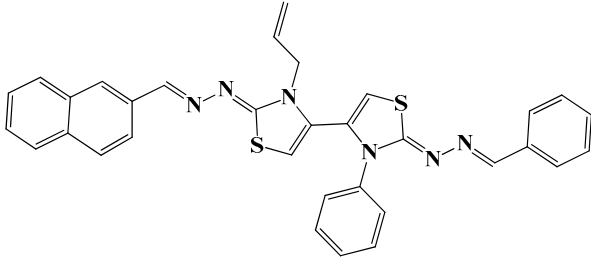
49		0	Nd
50		92	50
51		0	Nd
52		52	0
53		0	Nd

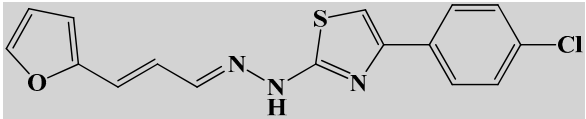
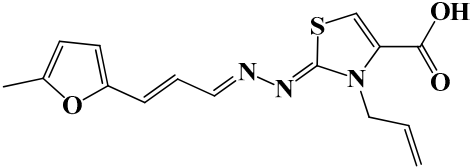
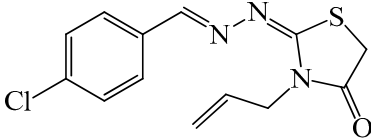
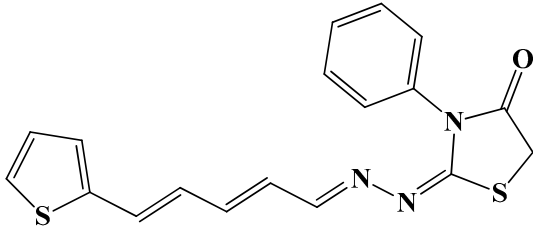
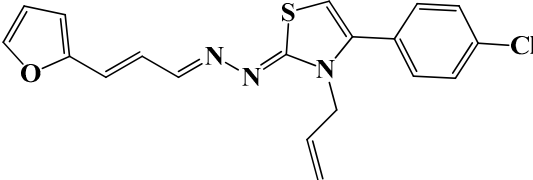
54		0	Nd
55		0	Nd
56		0	Nd
57		0	Nd
58		0	Nd

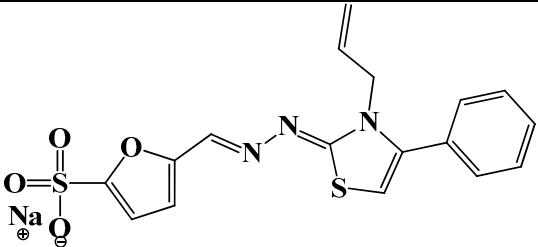
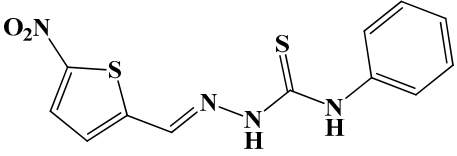
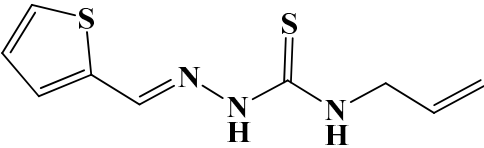
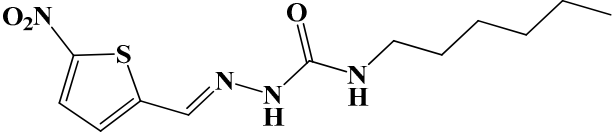
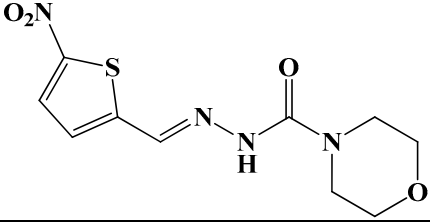
59	 <chem>O=[N+]([O-])c1cc(oc1)/C=C2/C(=N2)S(=O)(=O)N</chem>	0	Nd
60	 <chem>C1CCC(CC1)NS(=O)(=O)NC2CCCCC2</chem>	0	Nd
61	 <chem>c1ccccc1CN(S(=O)(=O)NCc2ccccc2)</chem>	0	Nd
62	 <chem>c1ccccc1CCCN(S(=O)(=O)NCCc2ccccc2)</chem>	70	Nd
63	 <chem>CN(C)CCCCNS(=O)(=O)NCCCCN(C)C</chem>	0	Nd
64	 <chem>CCCCCCNS(=O)(=O)NCCCCCC</chem>	0	Nd

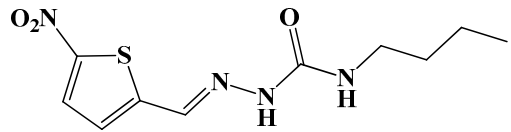
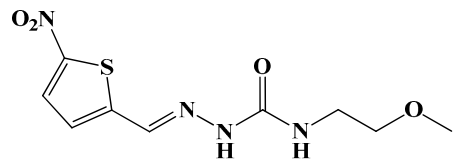
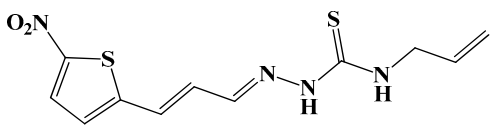
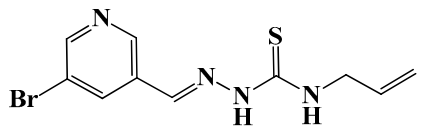
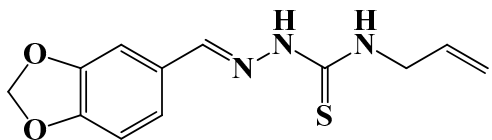
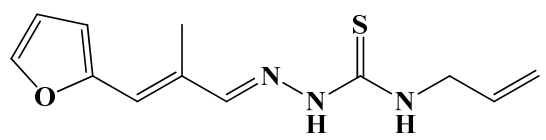
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66		0	Nd
67		0	Nd
Thiazolylidenehydrazines			
68		0	Nd
69		0	Nd

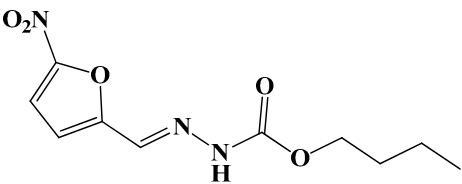
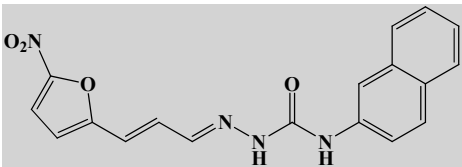
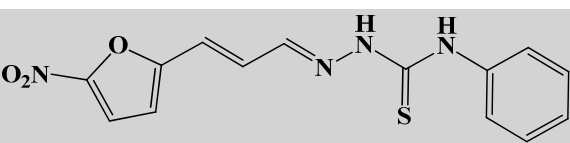
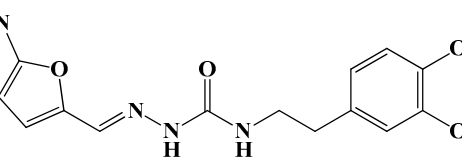
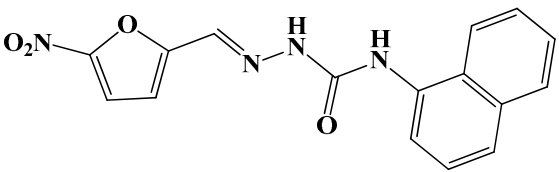
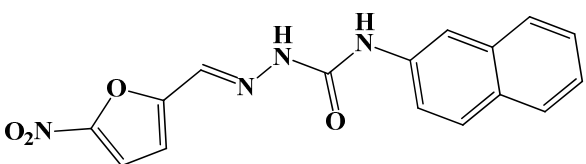
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72		0	Nd
73		0	Nd
74		0	Nd
75		0	Nd

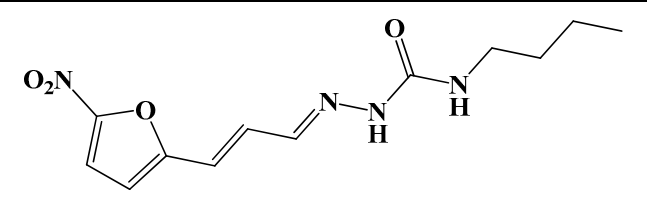
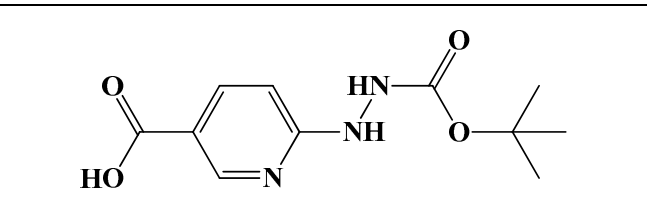
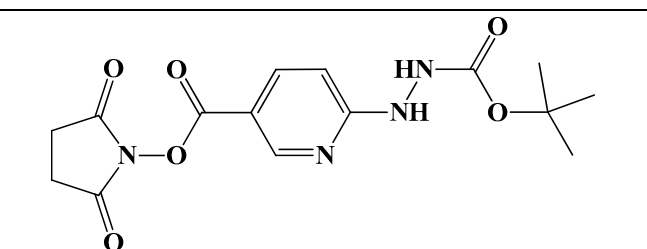
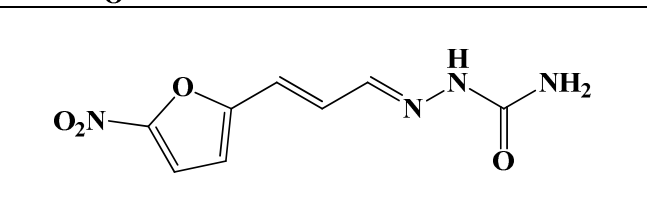
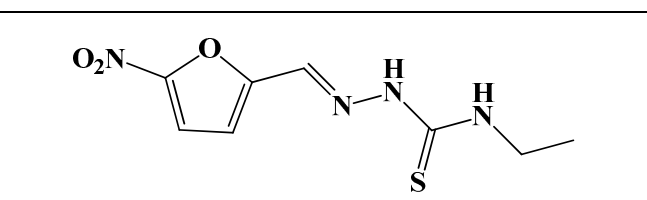
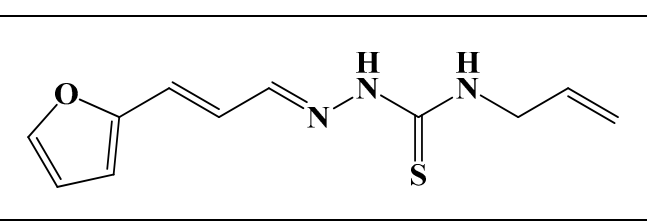
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77		0	Nd
78		0	Nd
79		0	Nd
80		0	Nd

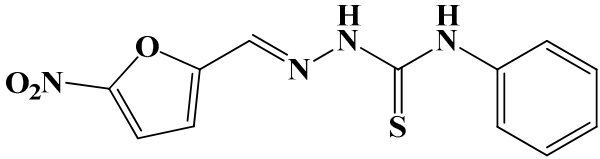
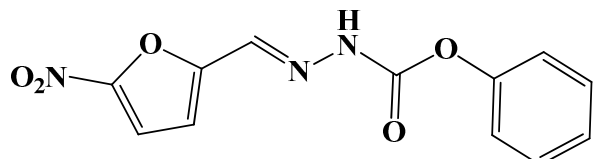
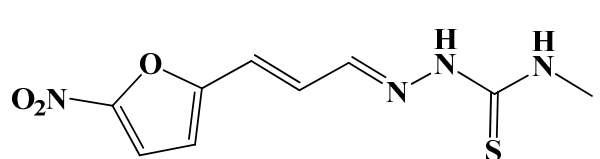
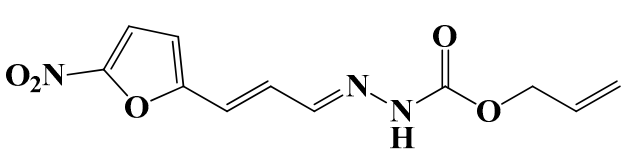
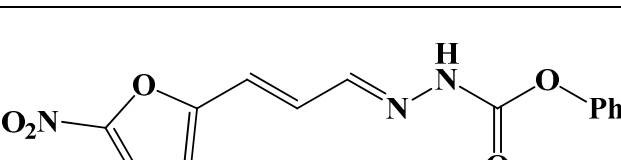
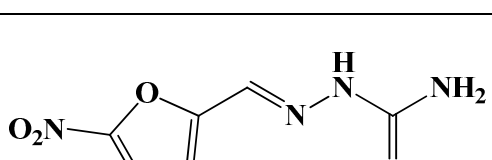
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82		0	Nd
83		0	Nd
84		0	Nd
85		0	Nd

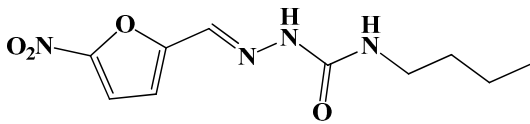
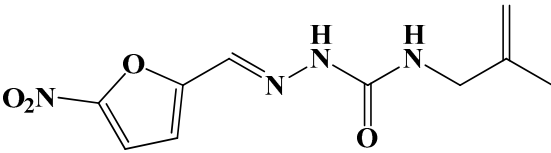
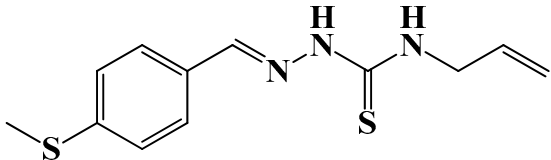
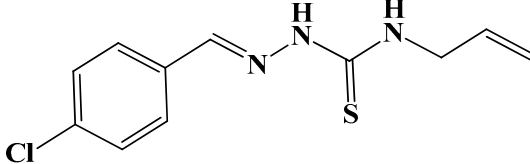
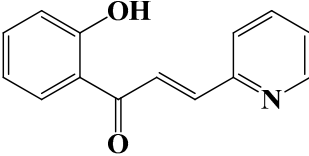
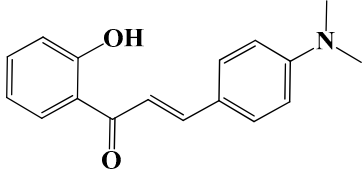
86		0	Nd
Hydrazide derivatives			
87		0	Nd
88		0	Nd
89		0	Nd
90		0	Nd

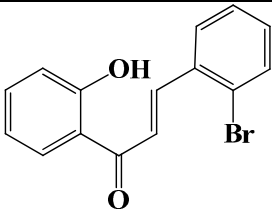
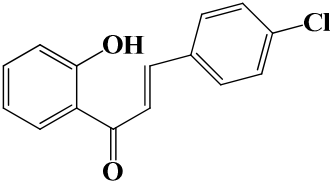
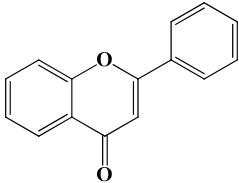
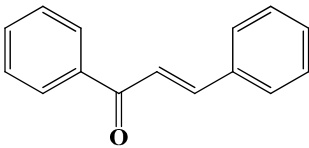
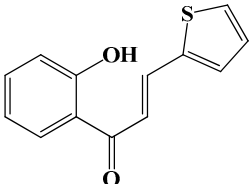
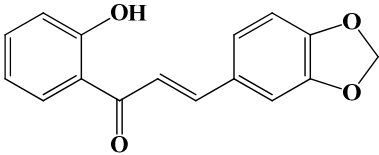
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93		0	Nd
94		0	Nd
95		0	Nd
96		0	Nd

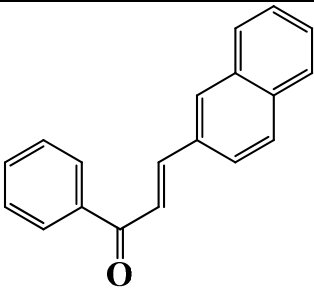
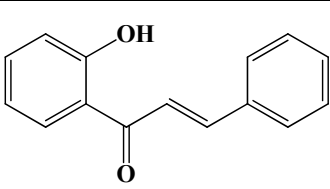
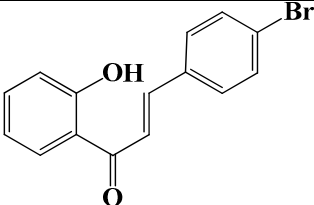
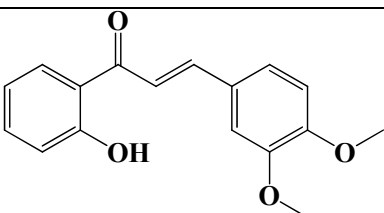
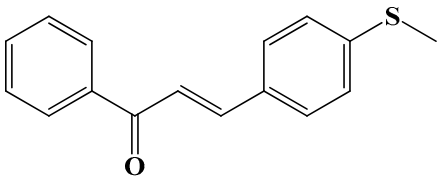
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99		50	Nd
100		0	Nd
101		0	Nd
102		0	Nd

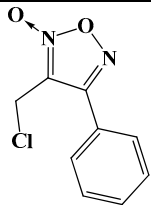
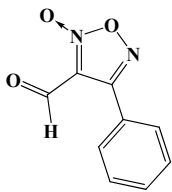
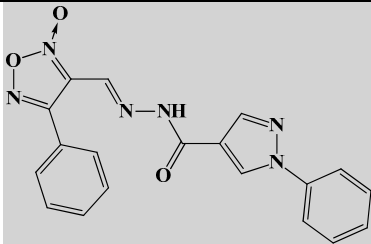
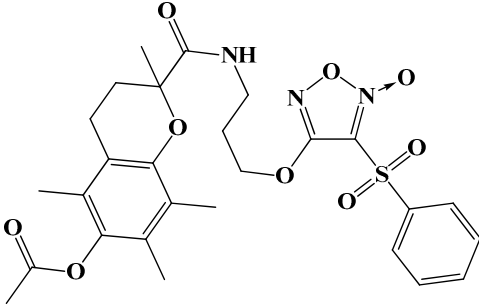
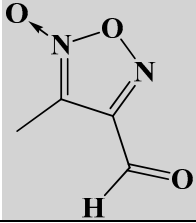
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106		0	Nd
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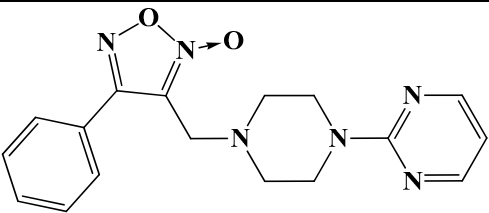
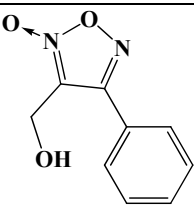
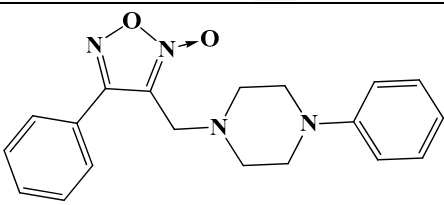
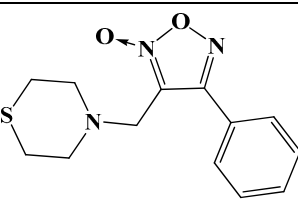
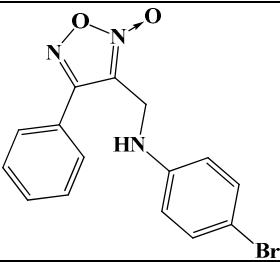
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111		0	Nd
112		0	Nd
113		0	Nd
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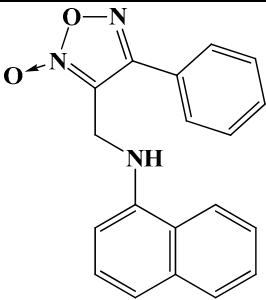
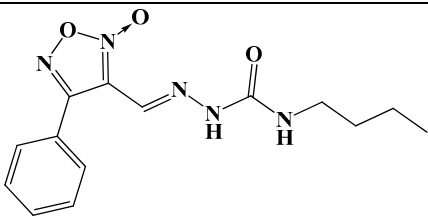
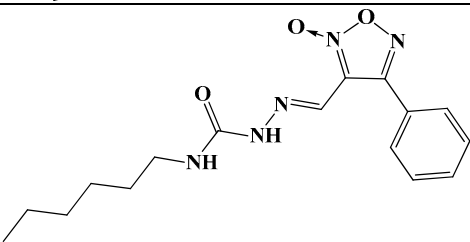
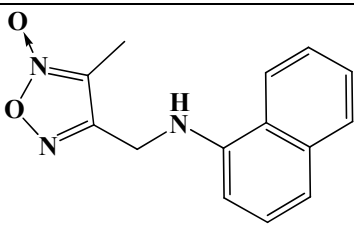
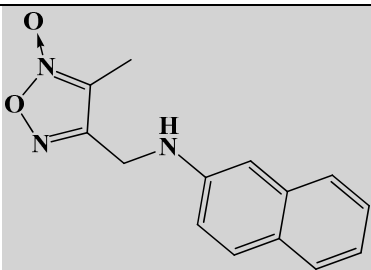
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117		0	Nd
118		0	Nd
Flavonoids			
119		0	Nd
120		0	Nd

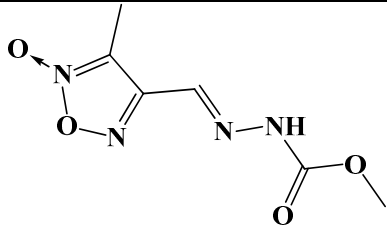
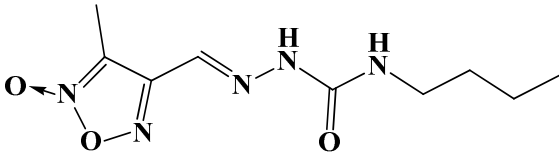
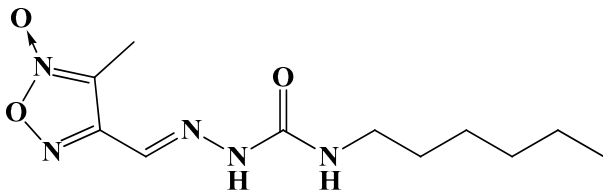
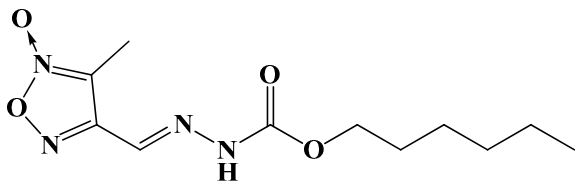
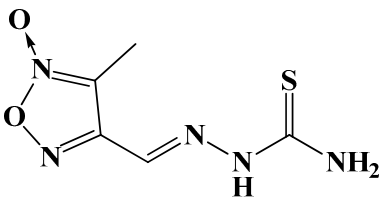
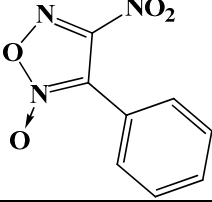
121	 <chem>O=C(Cc1ccccc1)C(O)c2ccccc2Br</chem>	0	Nd
122	 <chem>O=C(Cc1ccc(Cl)cc1)C(O)c2ccccc2</chem>	0	Nd
123	 <chem>O=C(Cc1ccccc1)C(O)c2ccccc2</chem>	0	Nd
124	 <chem>O=C(C=Cc1ccccc1)c2ccccc2</chem>	0	Nd
125	 <chem>O=C(Cc1ccsc1)C(O)c2ccccc2</chem>	0	Nd
126	 <chem>O=C(C=Cc1ccc2c(c1)OCO2)c3ccccc3O</chem>	0	Nd

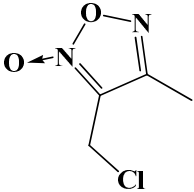
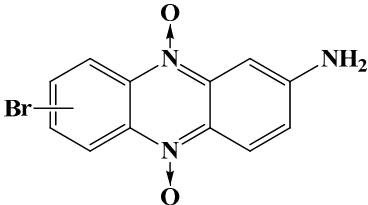
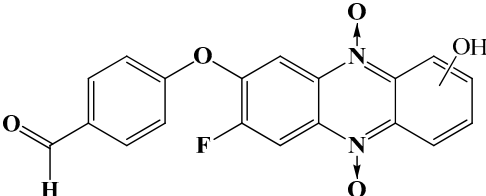
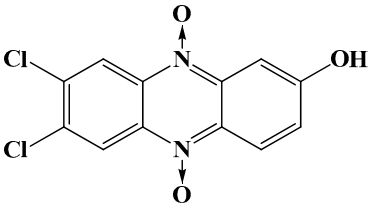
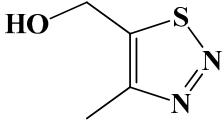
127		0	Nd
128		0	Nd
129		0	Nd
130		0	Nd
131		0	Nd
Furoxans			

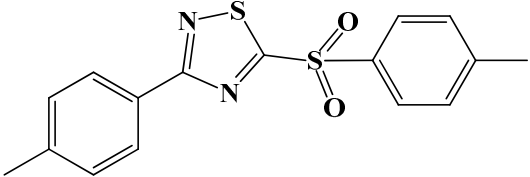
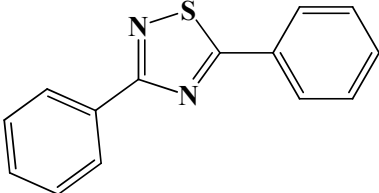
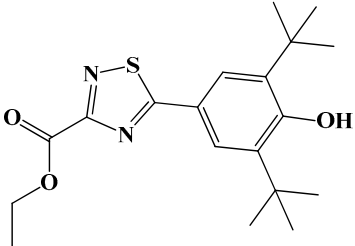
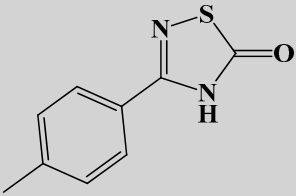
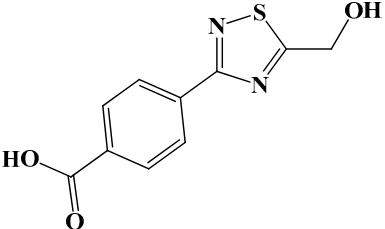
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133		0	Nd
134		77	Nd
135		0	Nd
136		94	Nd

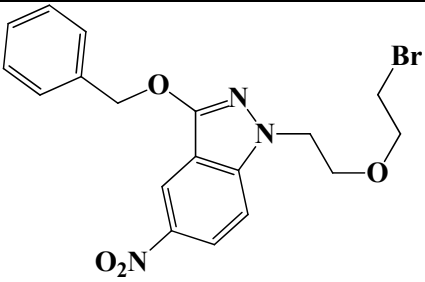
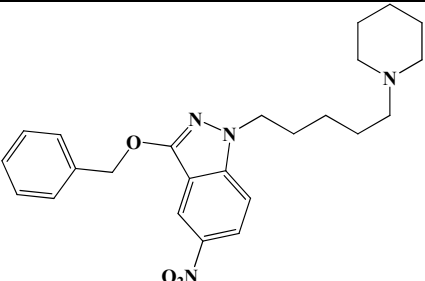
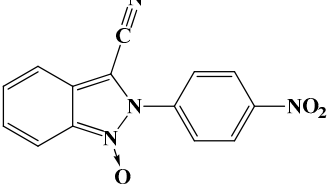
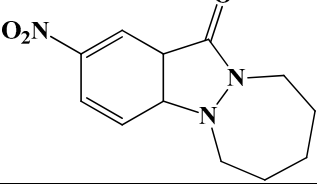
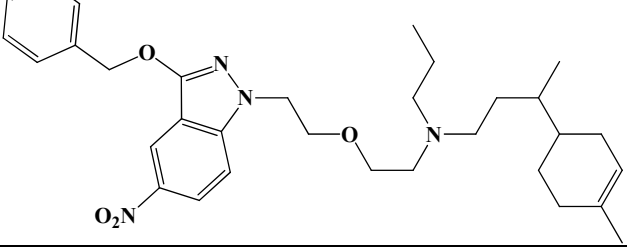
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138		0	Nd
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140		0	Nd
141		0	Nd

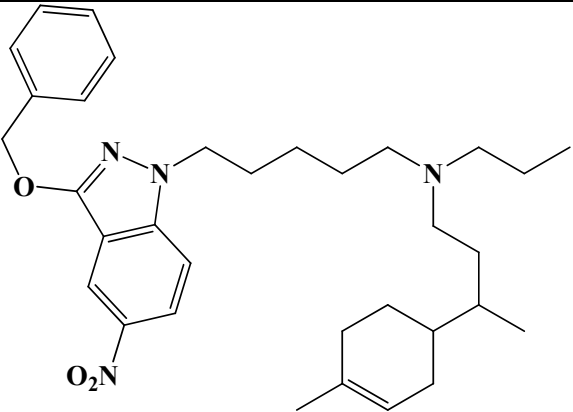
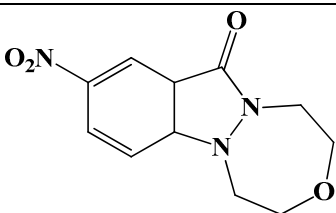
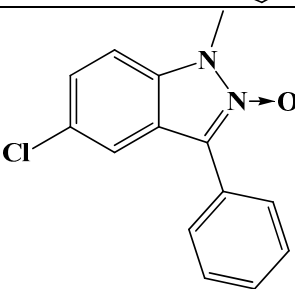
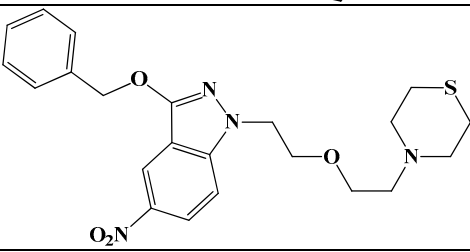
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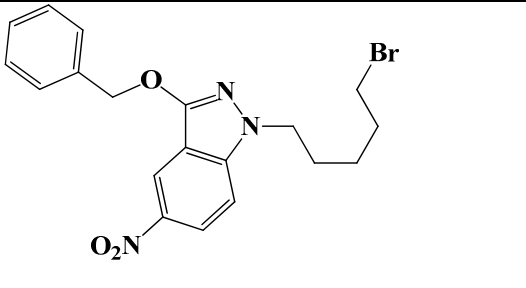
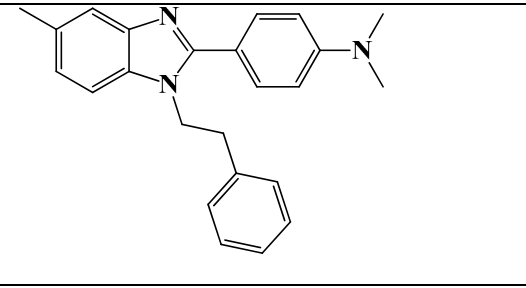
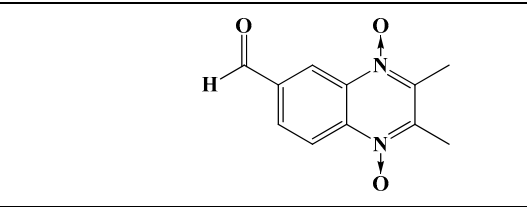
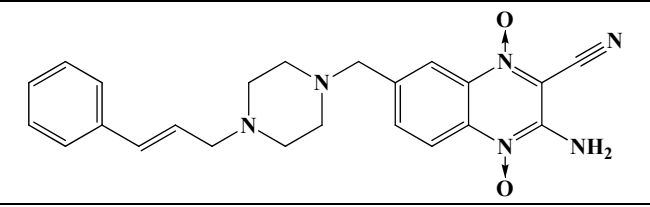
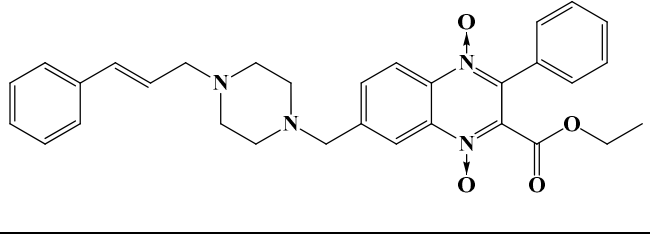
147	 <chem>CC1=CN2C(=N1)O=N2C=NNC(=O)OC</chem>	0	Nd
148	 <chem>CCCCNC(=O)NNC=CC1=CN2C(=N1)O=N2C</chem>	0	Nd
149	 <chem>CCCCCCNC(=O)NNC=CC1=CN2C(=N1)O=N2C</chem>	0	Nd
150	 <chem>CCCCCCOC(=O)NNC=CC1=CN2C(=N1)O=N2C</chem>	0	Nd
151	 <chem>NC(=S)NNC=CC1=CN2C(=N1)O=N2C</chem>	0	Nd
152	 <chem>Cc1nc(cc1O=N)[N+](=O)[O-]c2ccccc2</chem>	0	Nd

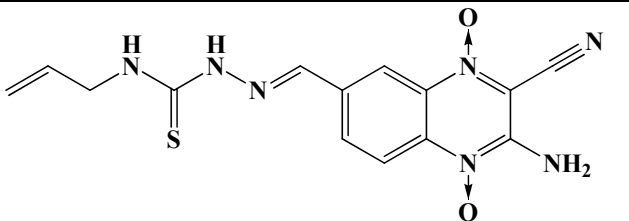
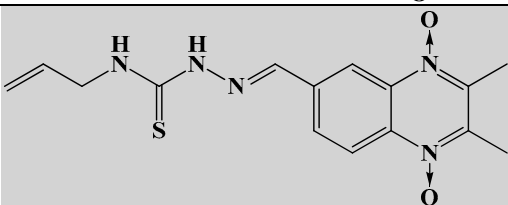
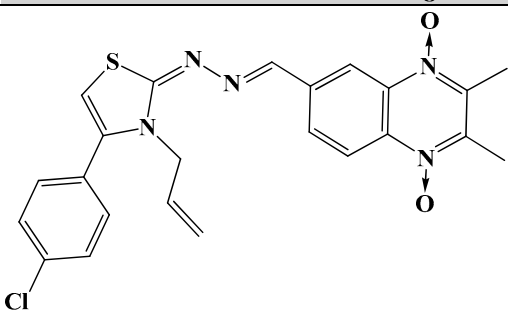
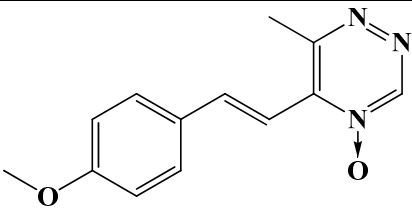
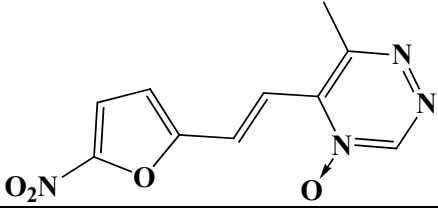
153	 <chem>CC1=CN(O1)CCl</chem>	0	Nd
Phenazines			
154	 <chem>Nc1ccc2c(c1)n3c(=O)c4cc(Br)ccc4n3c2=O</chem>	0	Nd
155	 <chem>O=Cc1ccc(Oc2cc3c(cc2F)n4c(=O)c5ccc(O)cc5n4c3=O)cc1</chem>	0	Nd
156	 <chem>Oc1ccc2c(c1)n3c(=O)c4cc(Cl)c(Cl)cc4n3c2=O</chem>	0	Nd
Thiadiazoles			
157	 <chem>CC1=NN(S1)CO</chem>	0	Nd

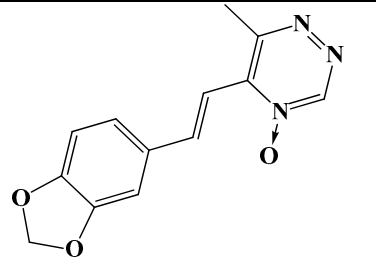
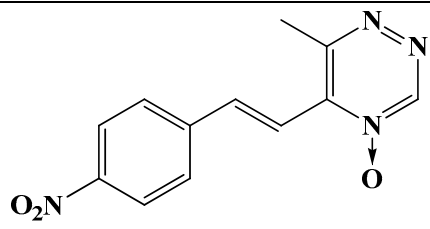
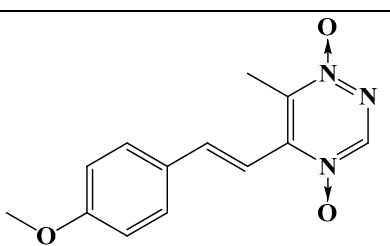
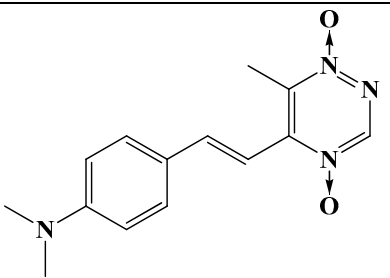
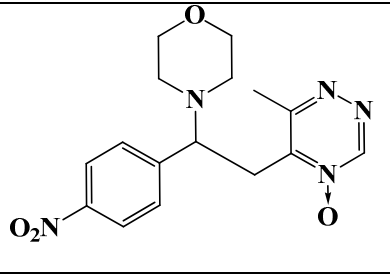
158		0	Nd
159		0	Nd
160		0	Nd
161		98	Nd
162		0	Nd
Indazoles			

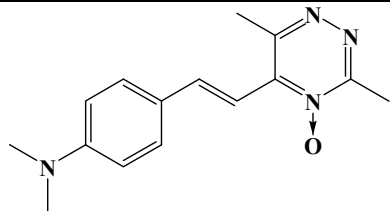
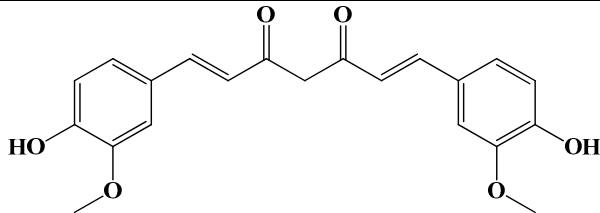
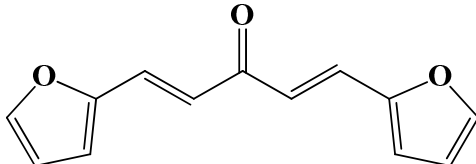
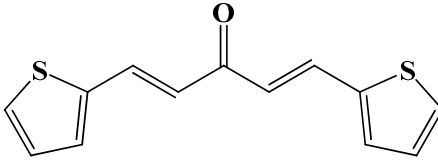
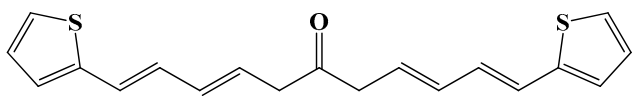
163	 <chem>BrCCOc1nc2cc(ccc2n1)Oc3ccccc3</chem>	0	Nd
164	 <chem>C1CCNCC1Cc2nc3cc(ccc3n2)Oc4ccccc4</chem>	0	Nd
165	 <chem>O=[N+]([O-])c1ccc(cc1)N2C#CC3=CC=CC=C3N2=O</chem>	0	Nd
166	 <chem>O=C1N2CCNCC2c3ccc(cc3[N+](=O)[O-])N1</chem>	0	Nd
167	 <chem>CC(C)CCN(CCOCc1nc2cc(ccc2n1)Oc3ccccc3)CC4=CC=C(C)C=C4</chem>	0	Nd

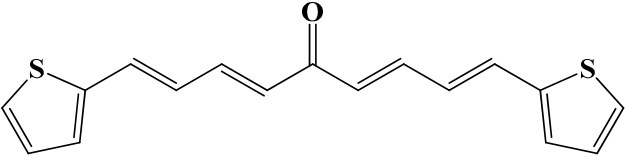
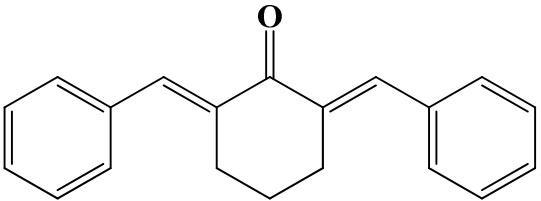
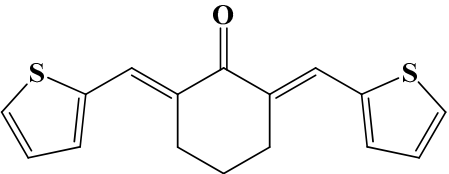
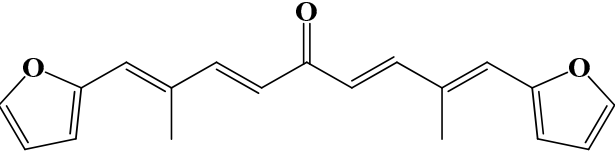
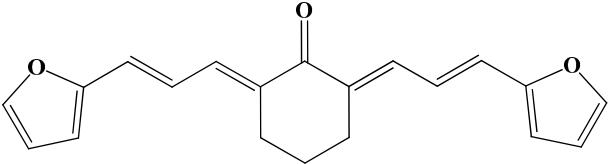
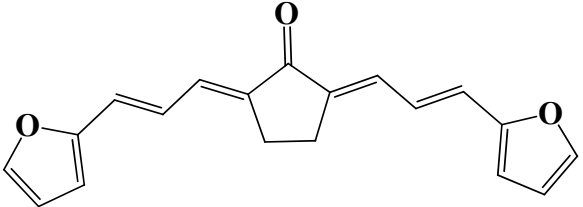
168		0	Nd
169		0	Nd
170		0	Nd
171		0	Nd

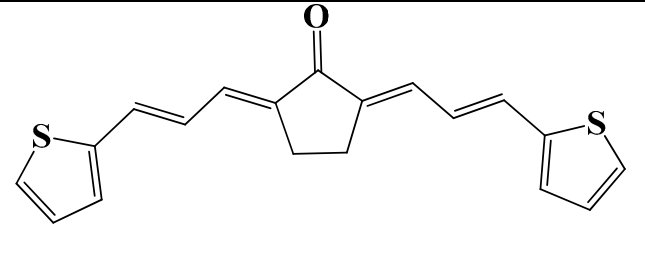
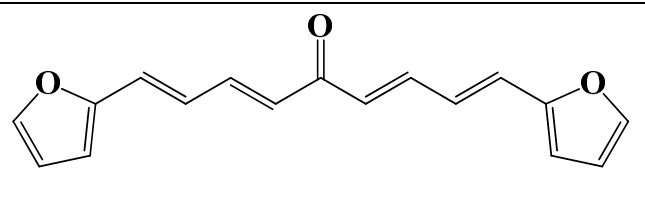
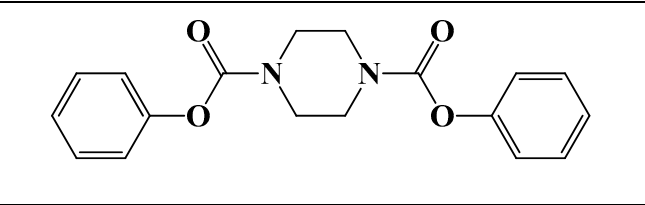
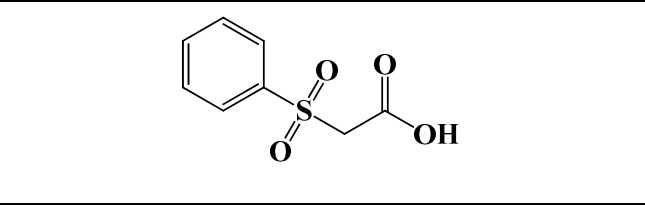
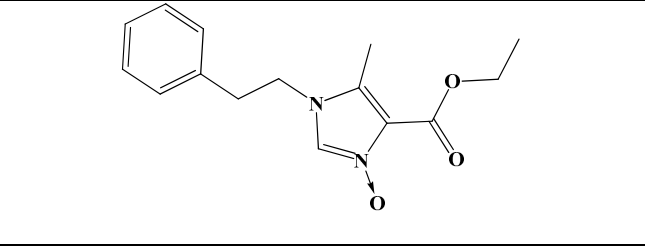
172		0	Nd
173		0	Nd
Quinoxalines			
174		0	Nd
175		0	Nd
176		0	Nd

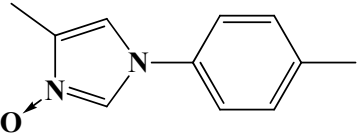
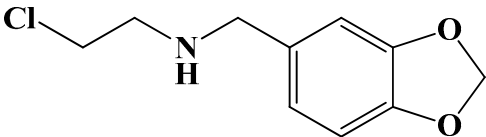
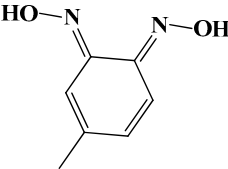
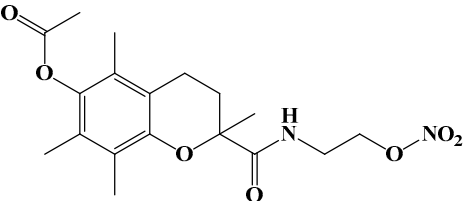
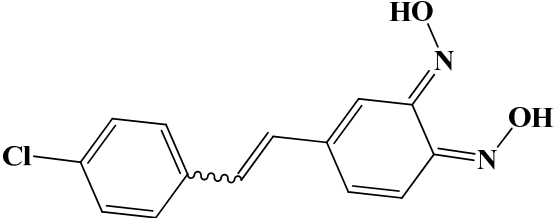
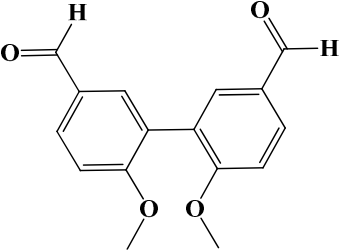
177		0	Nd
178		91	Nd
179		0	Nd
Triazines			
180		0	Nd
181		0	Nd

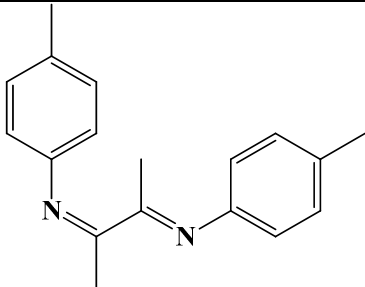
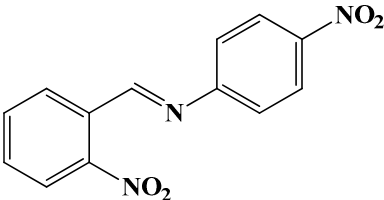
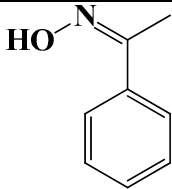
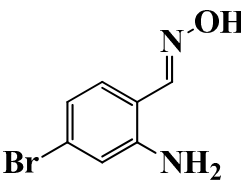
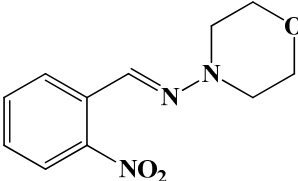
182		0	Nd
183		0	Nd
184		0	Nd
185		0	Nd
186		0	Nd

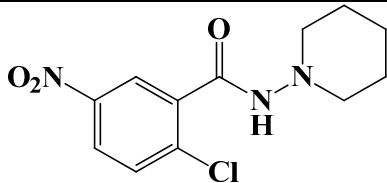
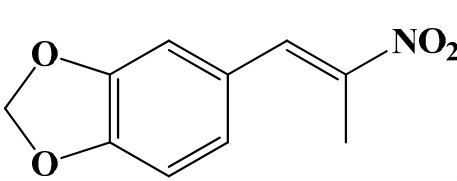
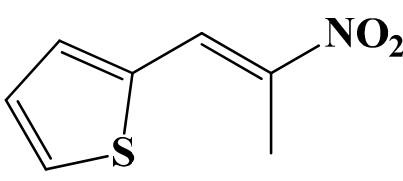
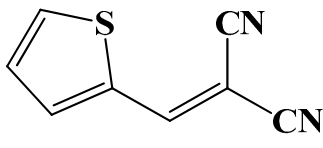
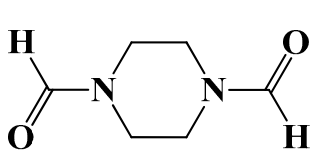
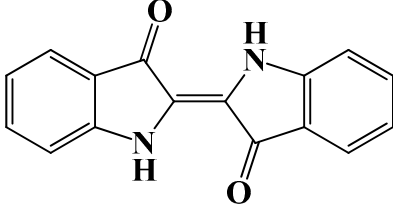
187		0	Nd
Curcumin and analogues			
188		0	Nd
189		0	Nd
190		0	Nd
191		0	Nd

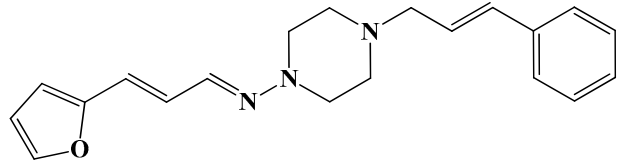
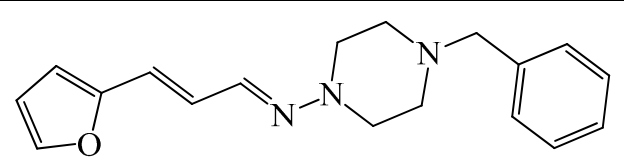
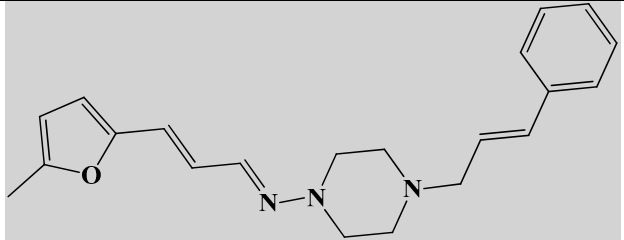
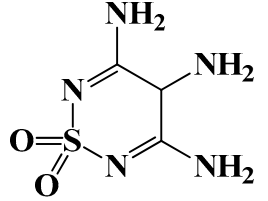
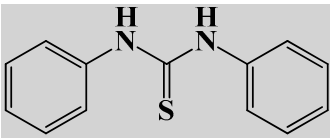
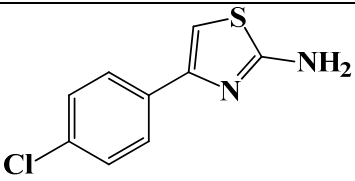
192	 <chem>O=C/C=C/C=C/C=C/C=C/c1ccsc1</chem>	0	Nd
193	 <chem>O=C1CCCCC1/C=C/c2ccccc2</chem>	0	Nd
194	 <chem>O=C1CCCCC1/C=C/c2ccsc2</chem>	0	Nd
195	 <chem>O=C/C=C(C)/C=C/C=C/C=C/c1ccoc1</chem>	0	Nd
196	 <chem>O=C1C=CC(=C1)/C=C/c2ccoc2</chem>	0	Nd
197	 <chem>O=C1C=CC=C1/C=C/c2ccoc2</chem>	0	Nd

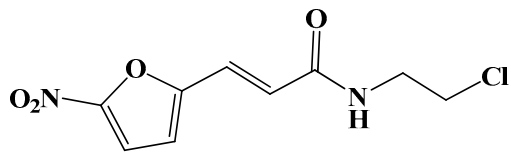
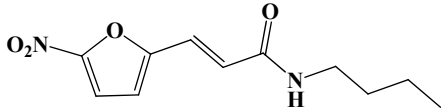
198		0	Nd
199		0	Nd
No clustered structures			
200		0	Nd
201		0	Nd
202		0	Nd

203		0	Nd
204		0	Nd
205		0	Nd
206		0	Nd
207		0	Nd
208		0	Nd

209	 <chem>Cc1ccc(cc1)C#NC(C)(C)C#Nc2ccc(C)cc2</chem>	0	Nd
210	 <chem>O=[N+]([O-])c1ccc(cc1)/C=C/c2cc([N+](=O)[O-])ccc2[N+](=O)[O-]</chem>	0	Nd
211	 <chem>CC(=N1O)C(=O)C1c2ccccc2</chem>	0	Nd
212	 <chem>Nc1cc(Br)ccc1/C=N/O</chem>	0	Nd
213	 <chem>O=[N+]([O-])c1ccccc1/C=C/N2CCOCC2</chem>	0	Nd

214		0	Nd
215		0	Nd
216		0	Nd
217		0	Nd
218		0	Nd
219		0	Nd

220		0	Nd
221		0	Nd
222		60	75
223		0	Nd
224		60	10
225		0	0

226		0	Nd
227		0	Nd

In gray are highlighted the best TIM inhibitors.

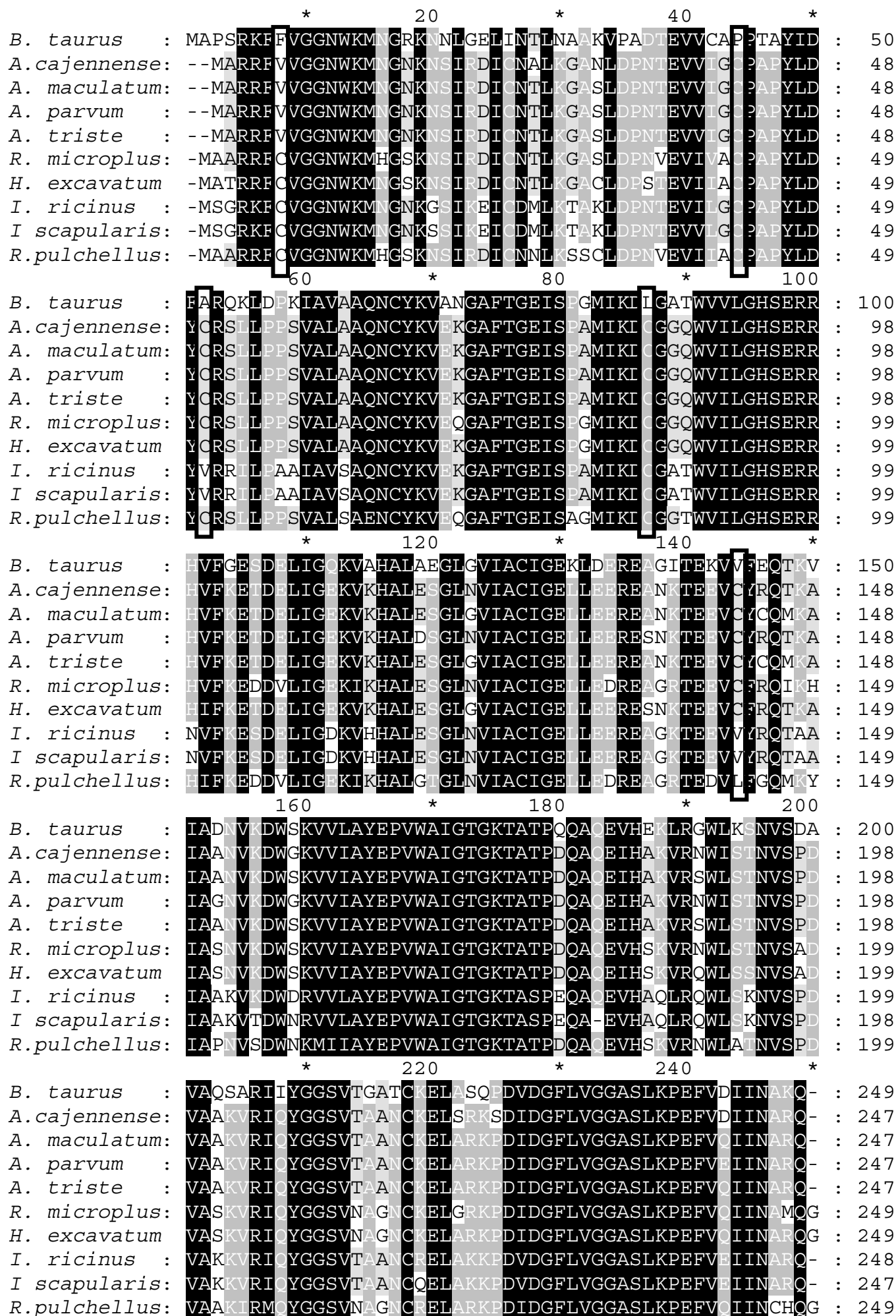


Figure S1: Multiple alignment of the amino acid sequence among TIM from different ticks and *B. Taurus*.

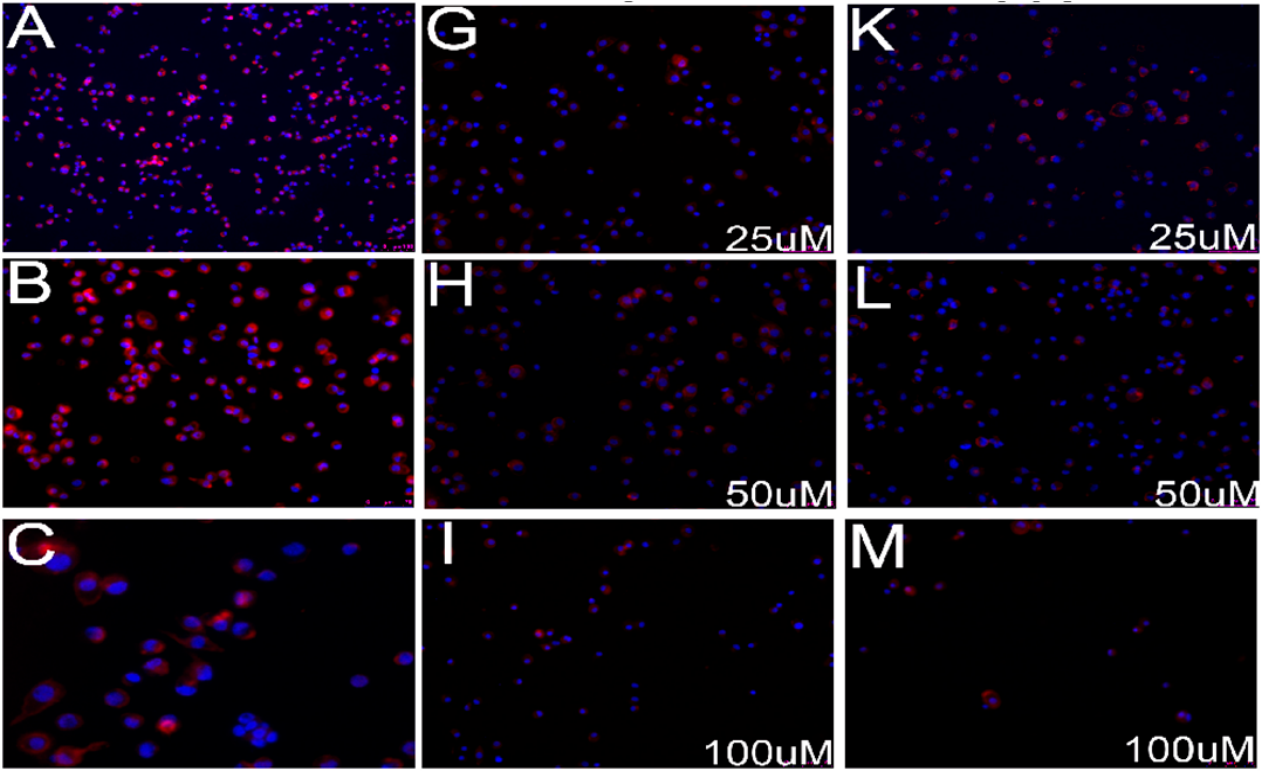


Figure S2: *In vitro* activity in BME26 embryonic cell from *R. microplus*.