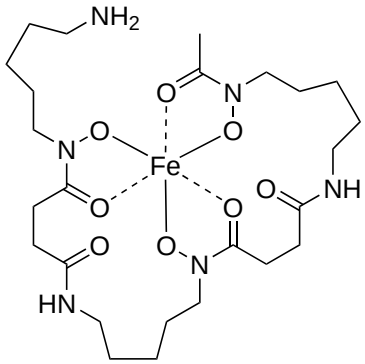

Deferoxamine B
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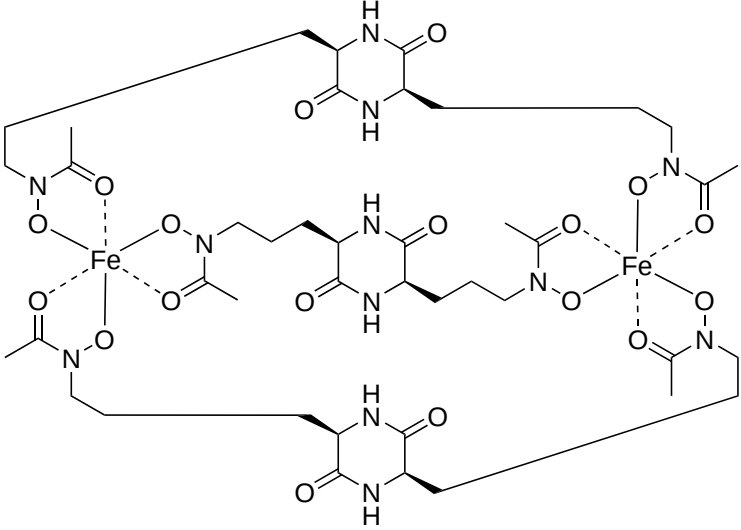
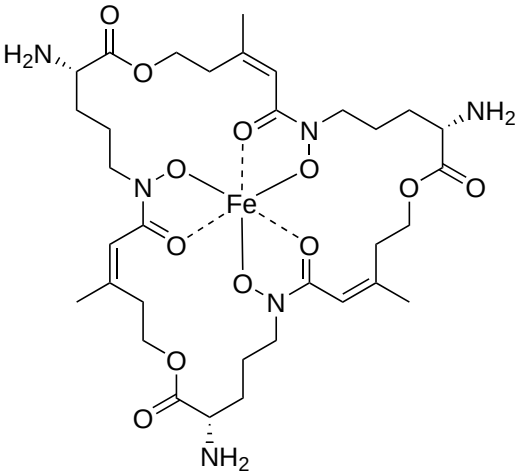


Rhodotorulic acid
2



Fusarinine C
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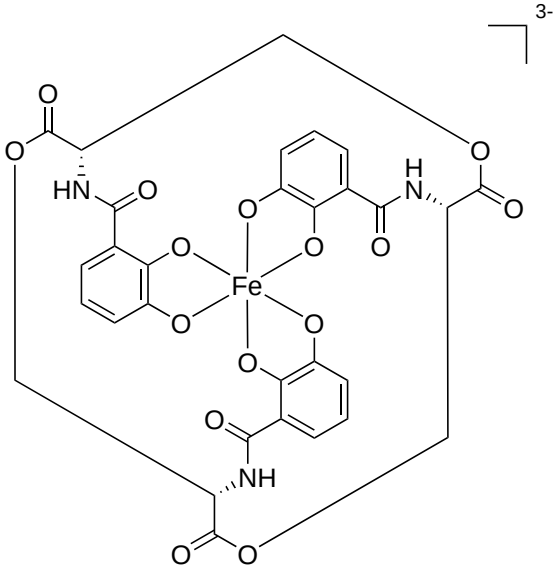

Enterobactin
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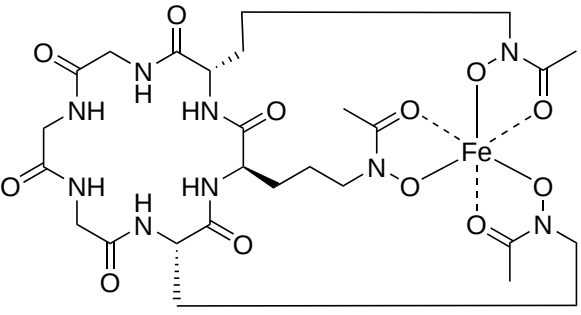

Ferrichrome
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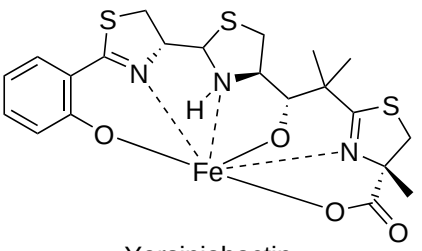

Yersiniabactin
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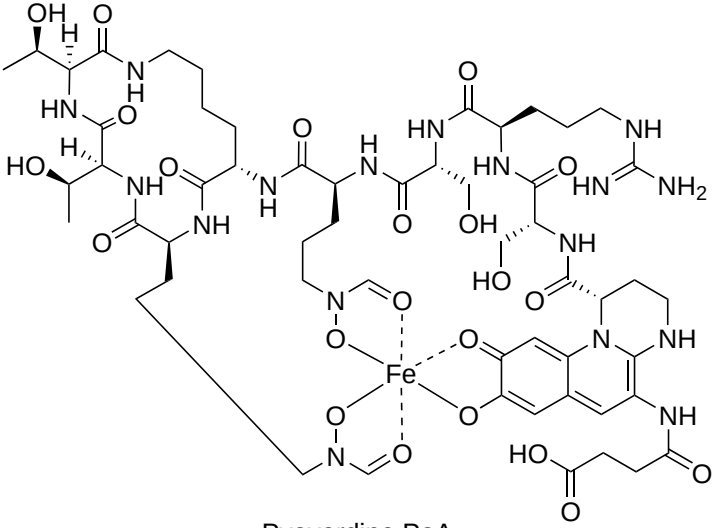
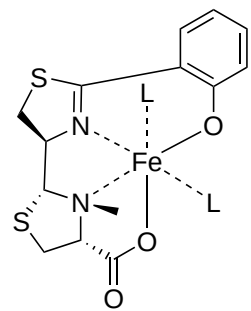


Pyoverdine PaA

7



Pyochelin

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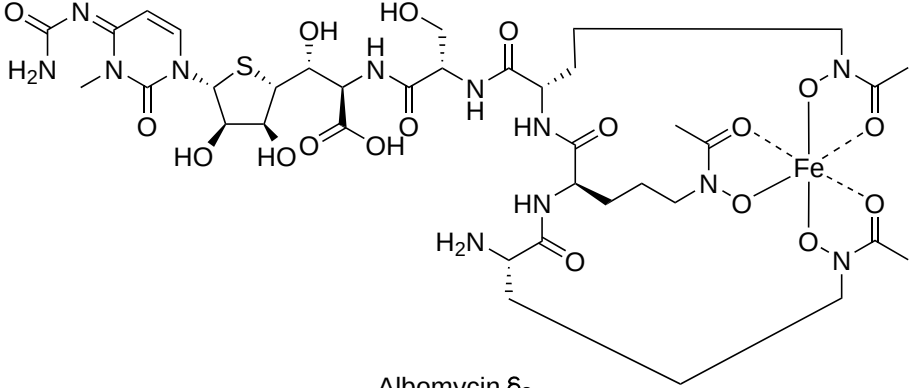

Albomycin δ_2
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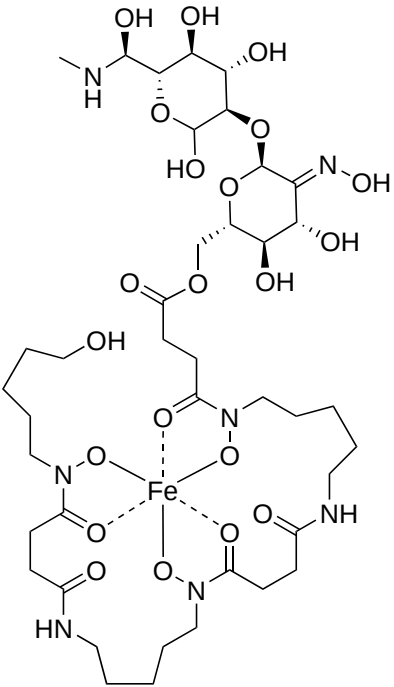

Salmycin A
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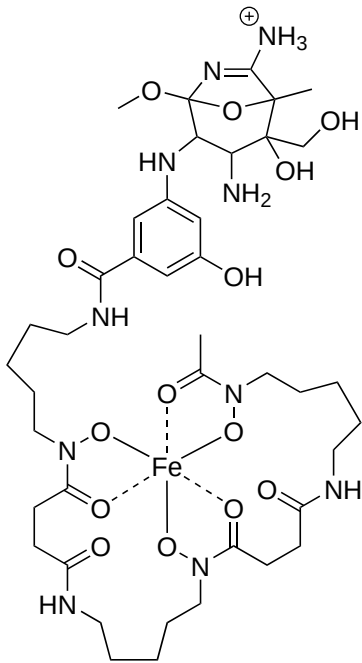

Ferrimycin A1
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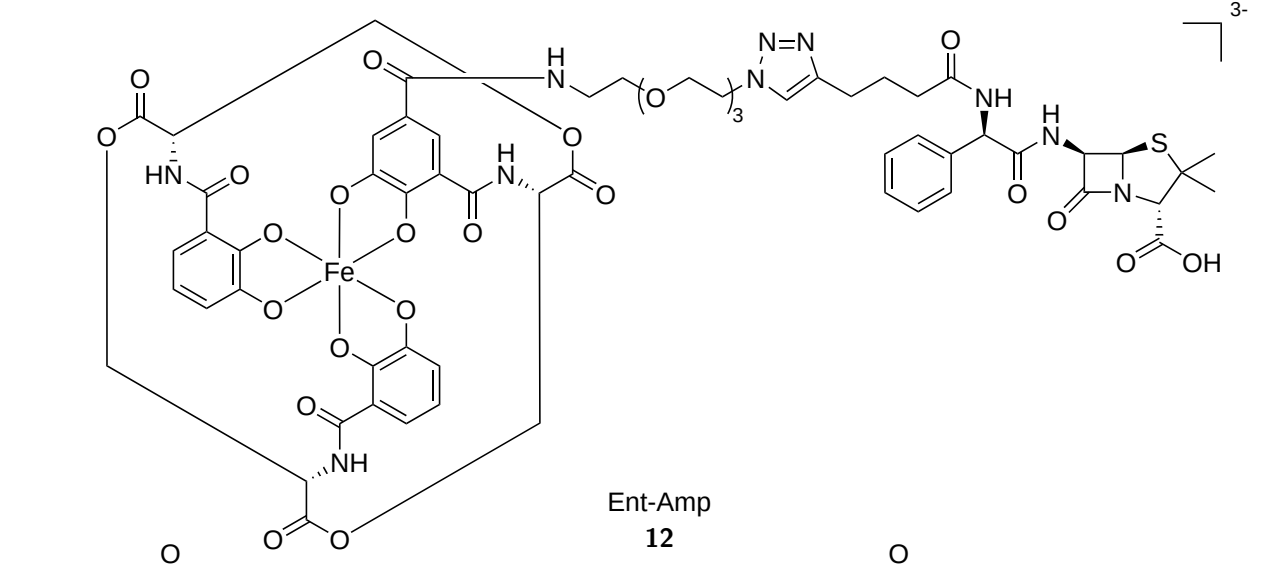

Ent-Amp
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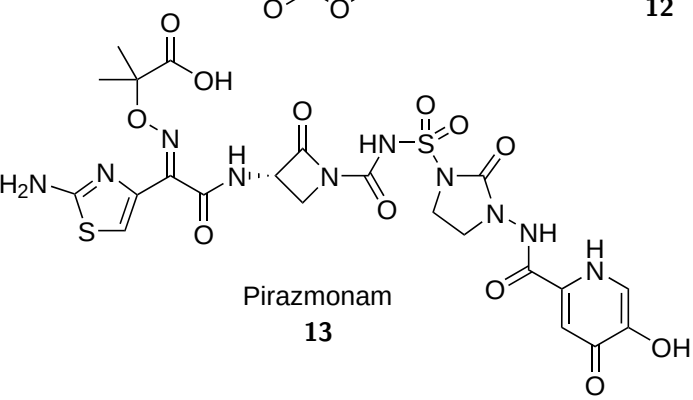

Pirazmonam
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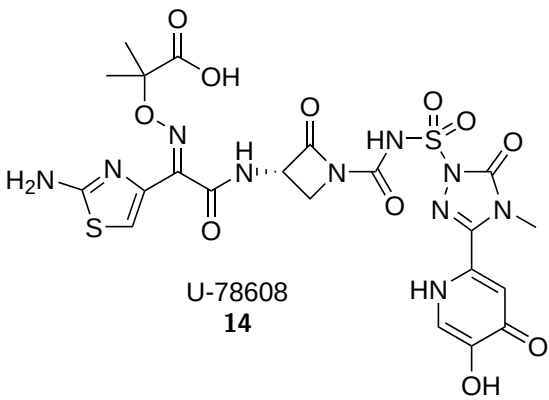

U-78608
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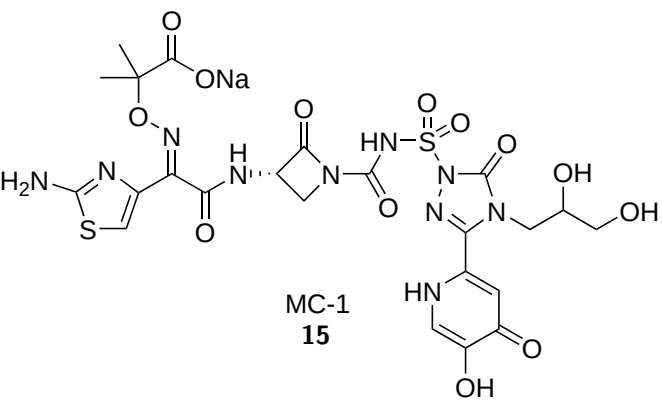

MC-1
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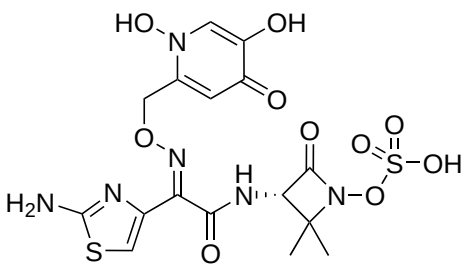

BAL30072
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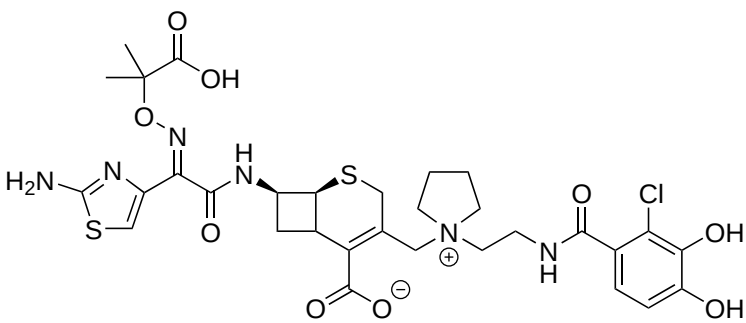

Cefiderocol
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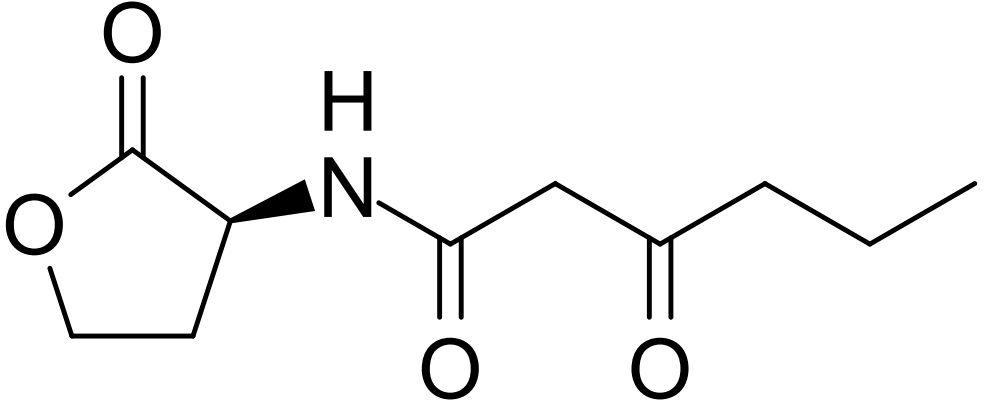
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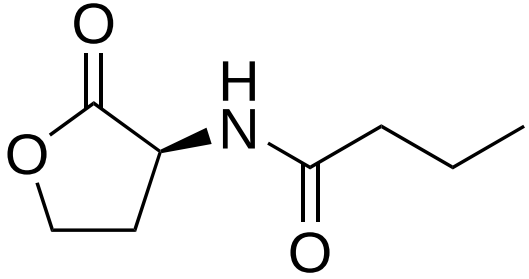

C_4-HSL

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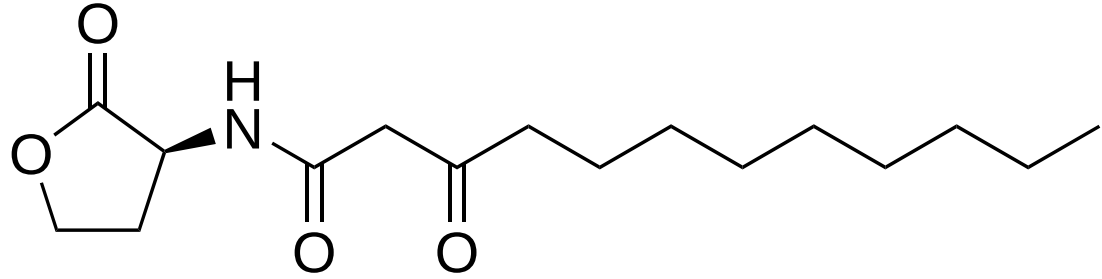

3-oxo-C_{12}-HSL

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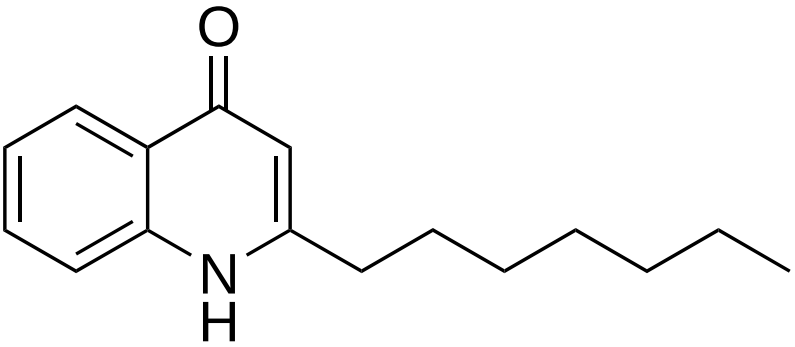

HHQ

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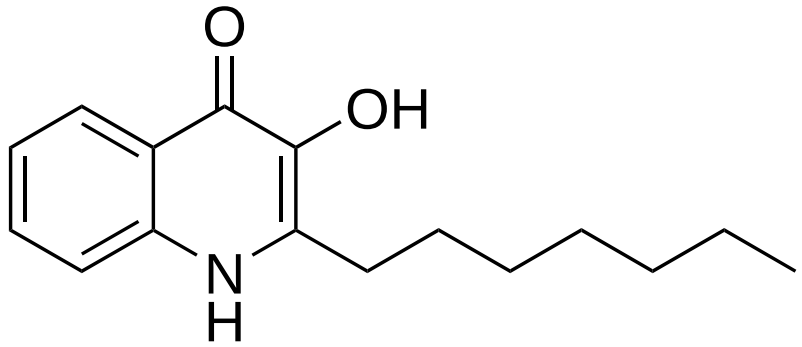

PQS

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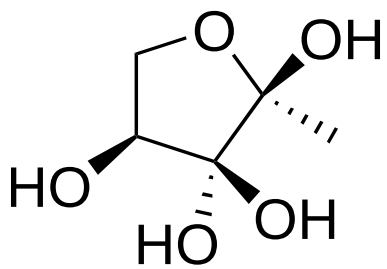

AI-2

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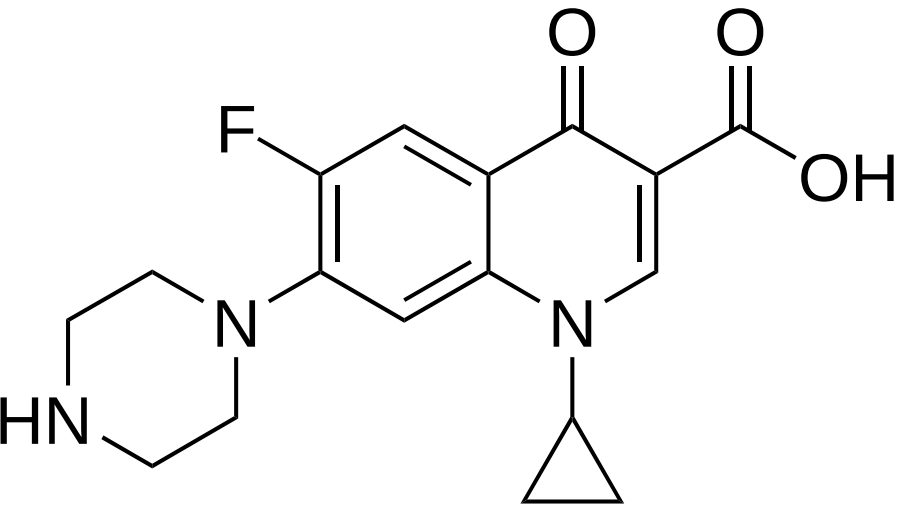

Ciprofloxacin

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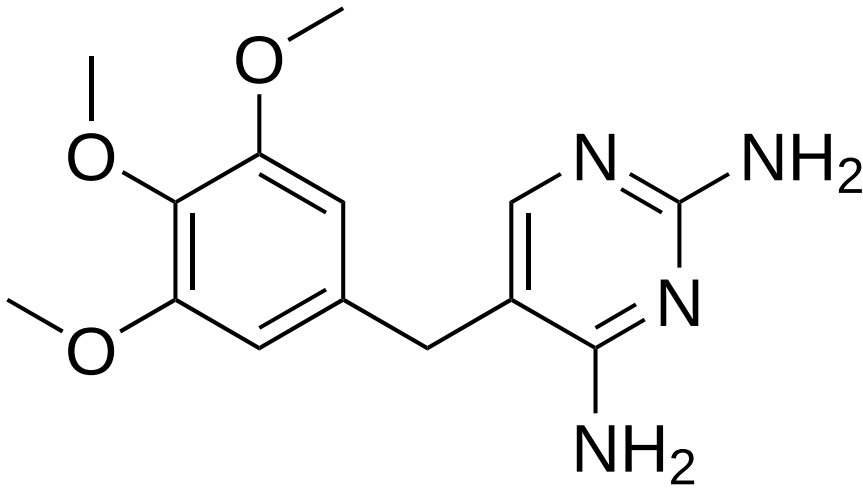

Trimethoprim

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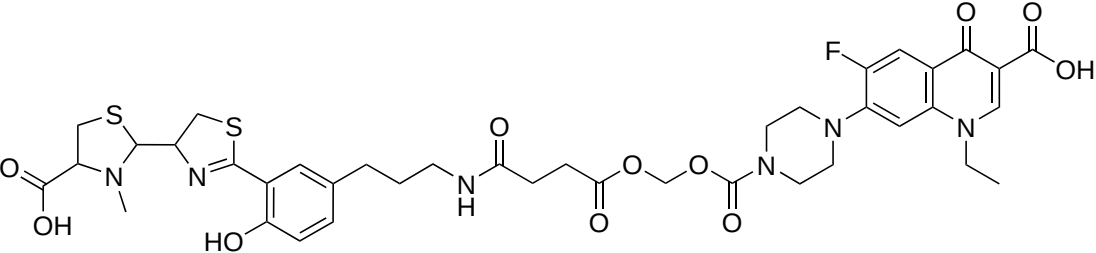

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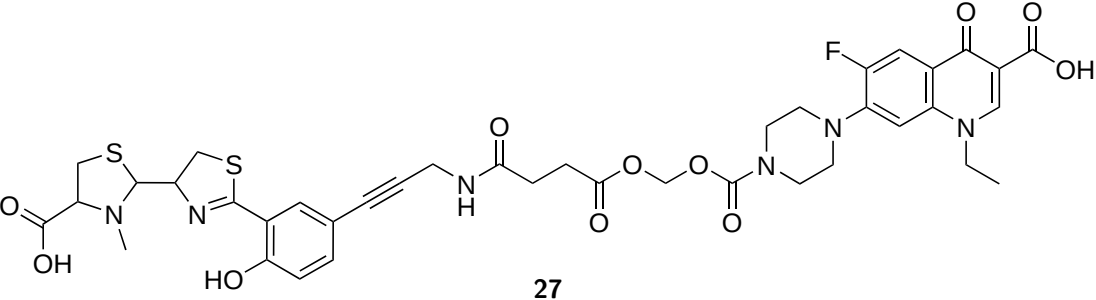

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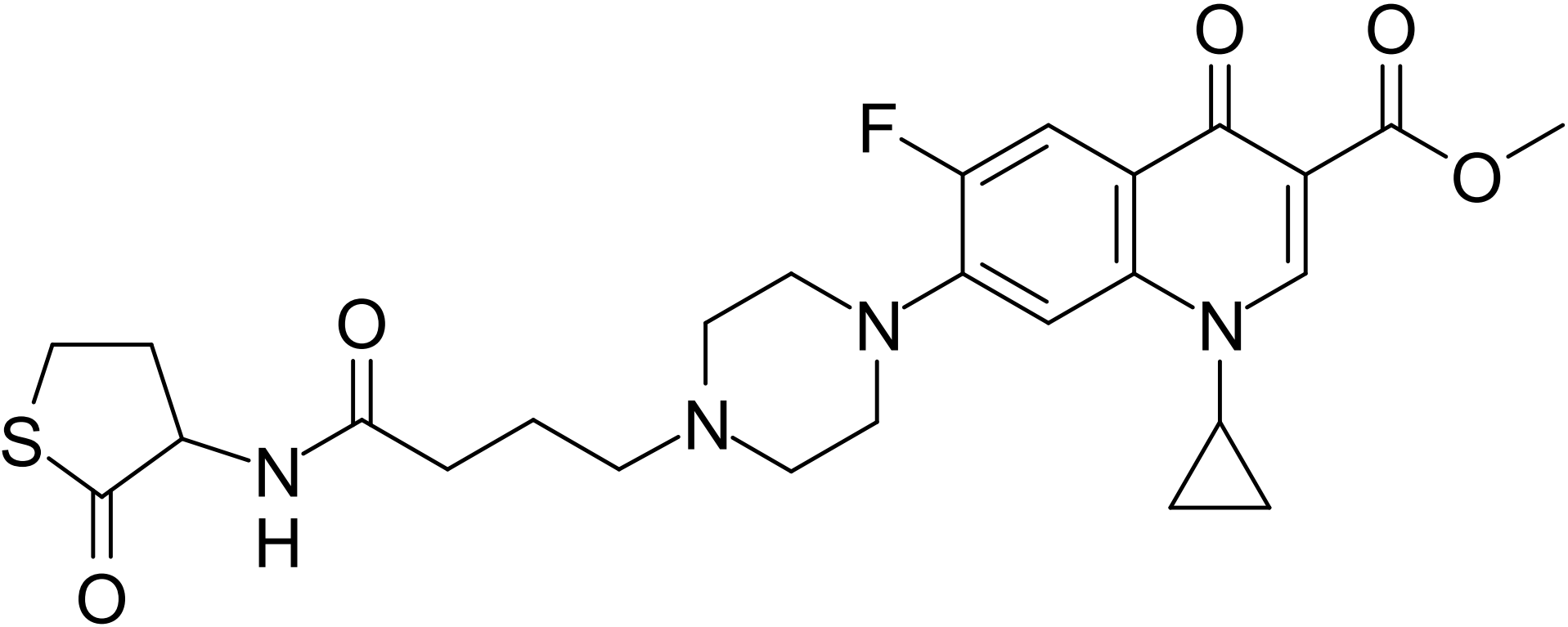
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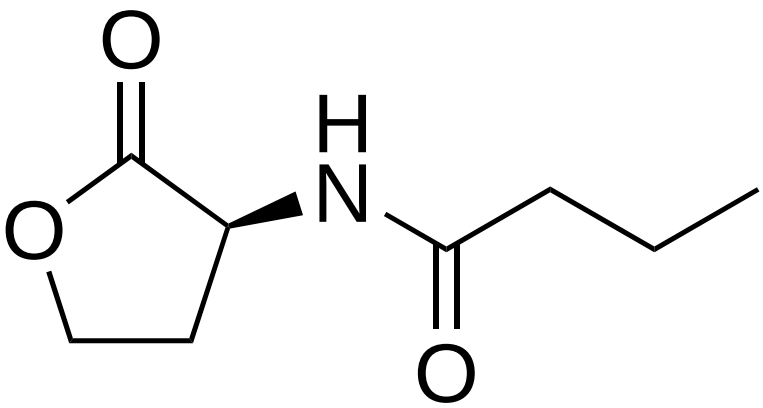

C_4-HSL

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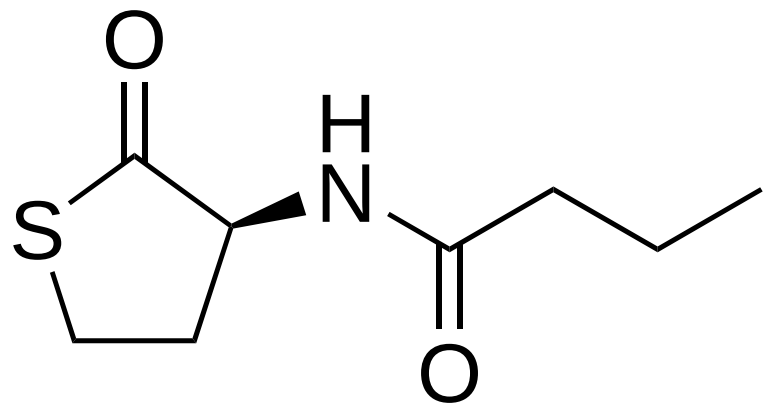

C_4-HCTL

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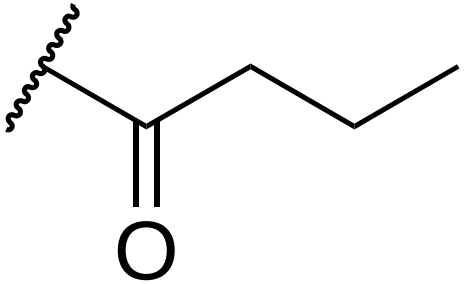
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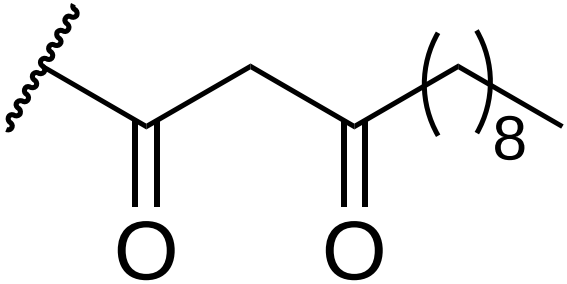
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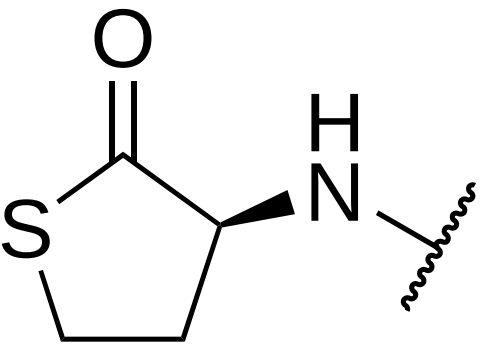
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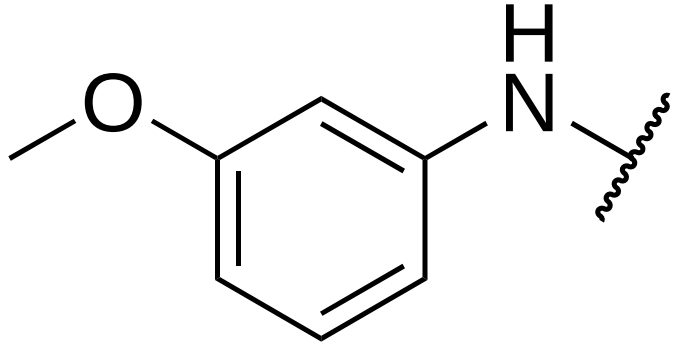
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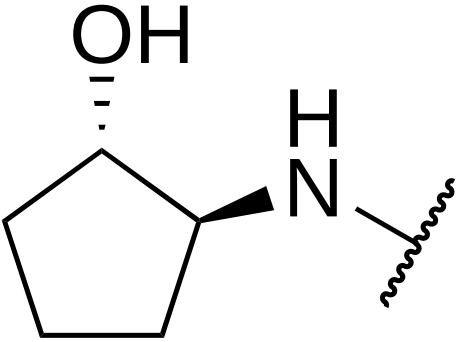
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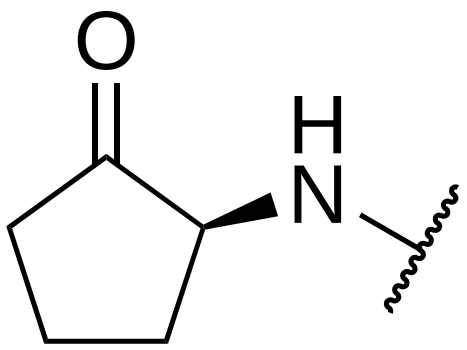
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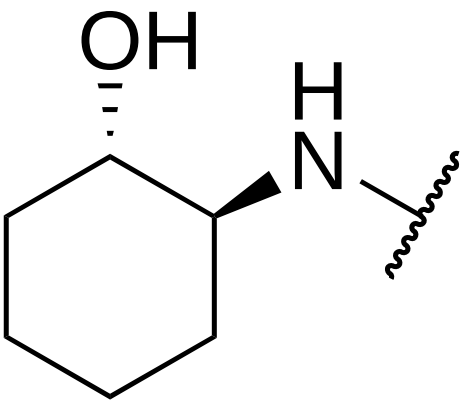
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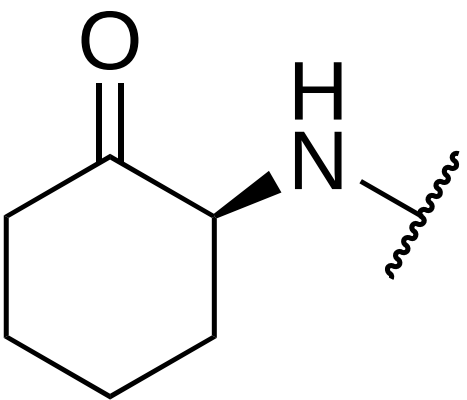
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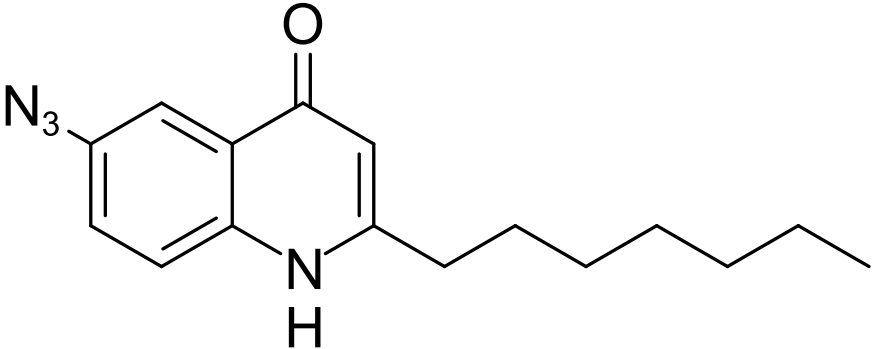
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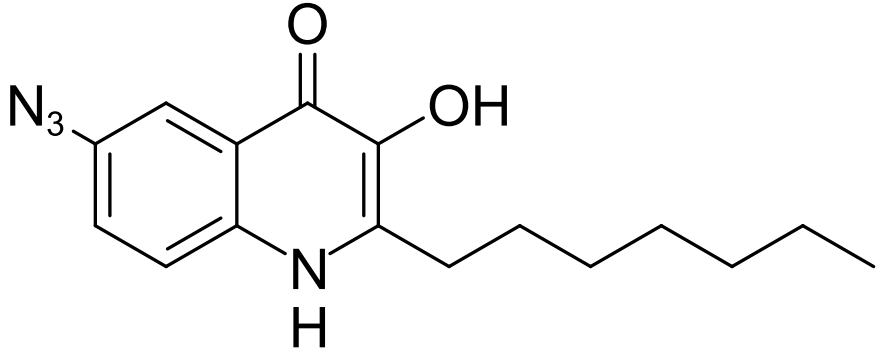
H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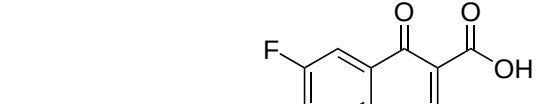
OH
N
H





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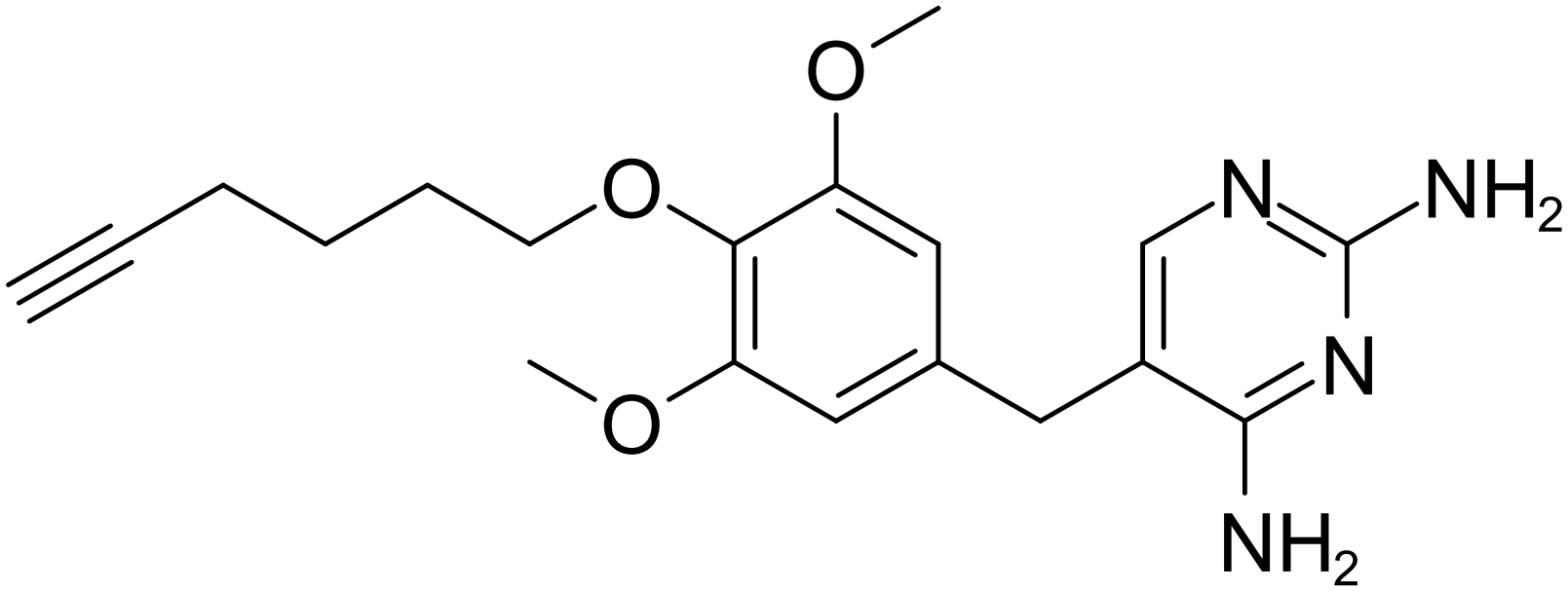
R = H **90**

R = Me **91**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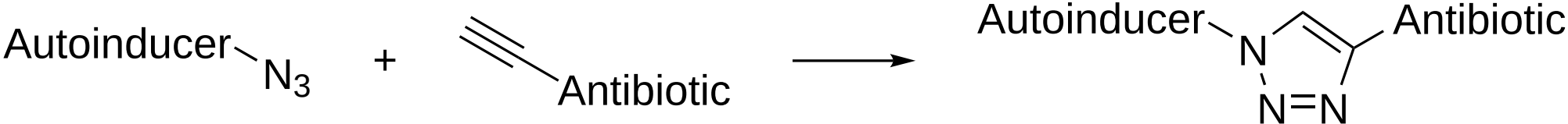
N
NH2
N
NH2


Autoinducer
N3
+
Antibiotic
Autoinducer
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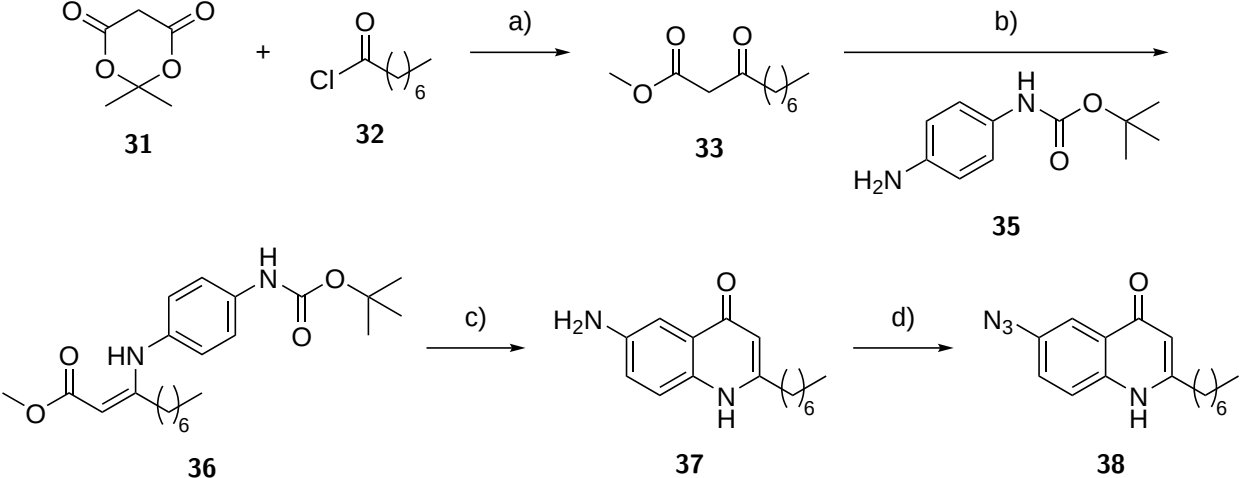
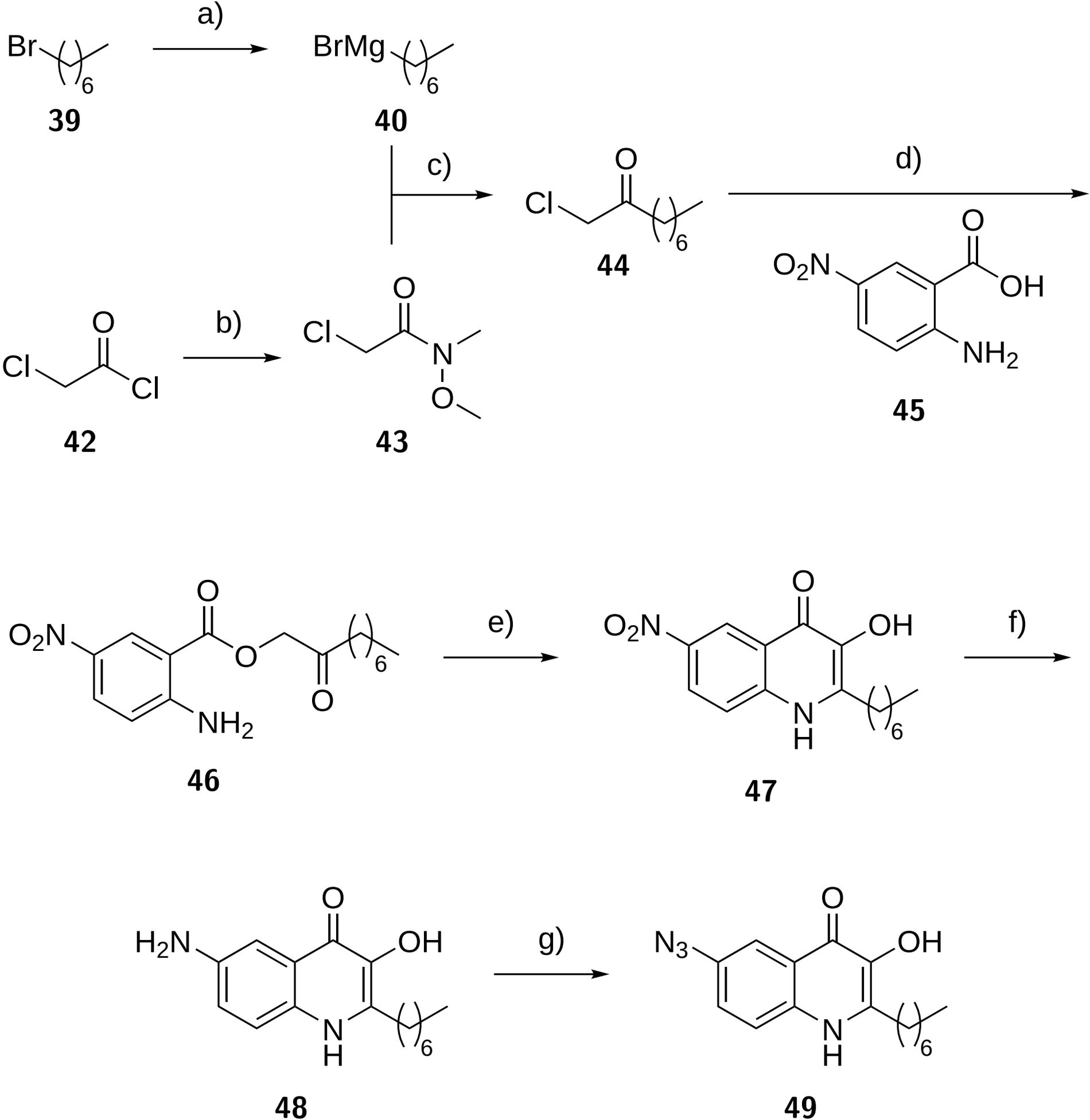
Antibiotic


a)
b)
c)
d)
31
32
33
35
36
37
38


a)
Br
6
BrMg
6
39
40
c)
O
Cl
6
44
d)
O
O2N
OH
NH2
45
O
Cl
Cl
42
b)
O
Cl
N
O
43
O
O2N
O
6
O
NH2
46
e)
O
O2N
OH
N
H
6
47
f)
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H2N
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6
48
g)
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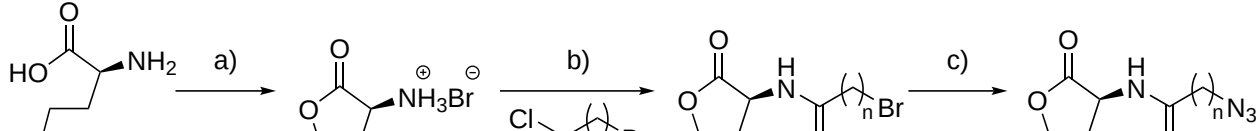
N3
OH
N
H
6
49

50 **52** **53** **55**



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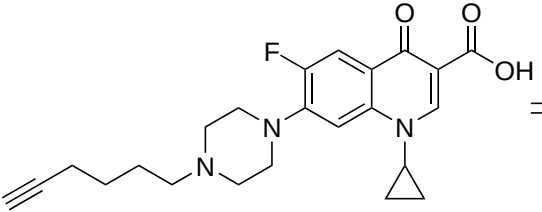

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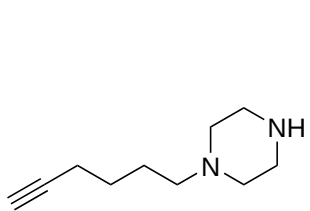

66

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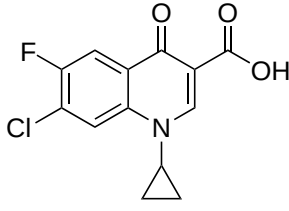
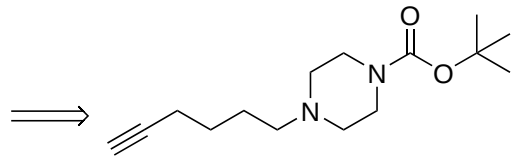


67



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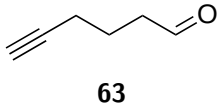
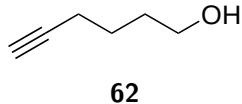
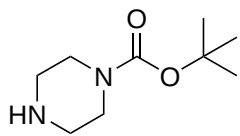


63

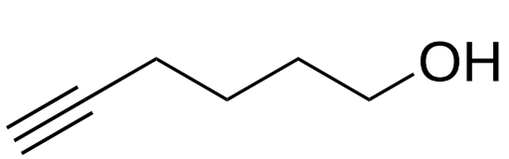


62

+

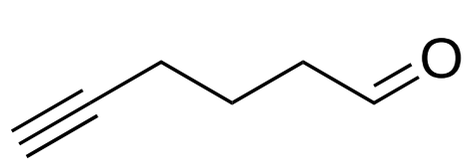


64



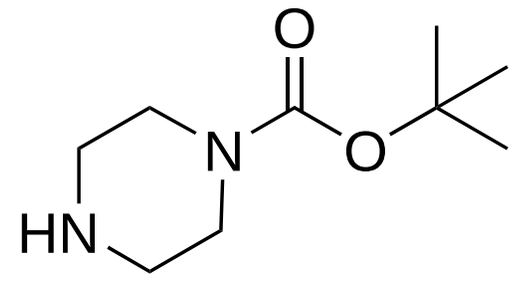
62

a)

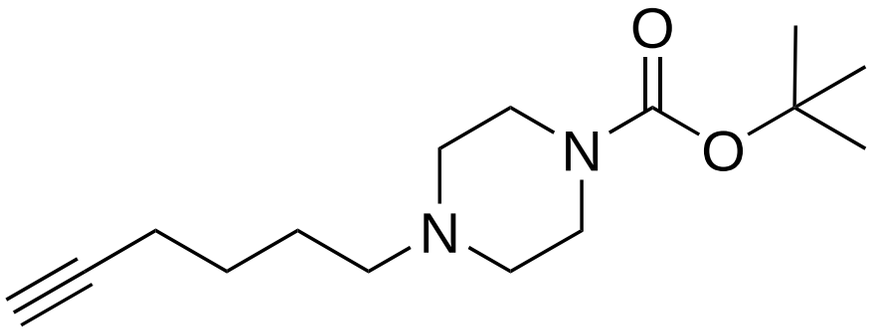


63

b)

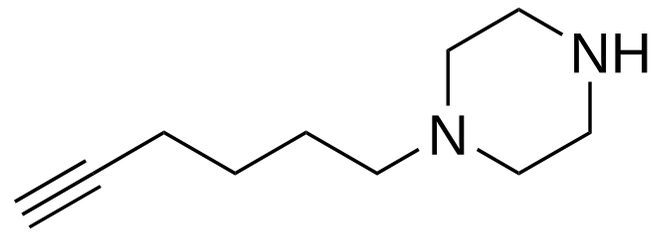


64



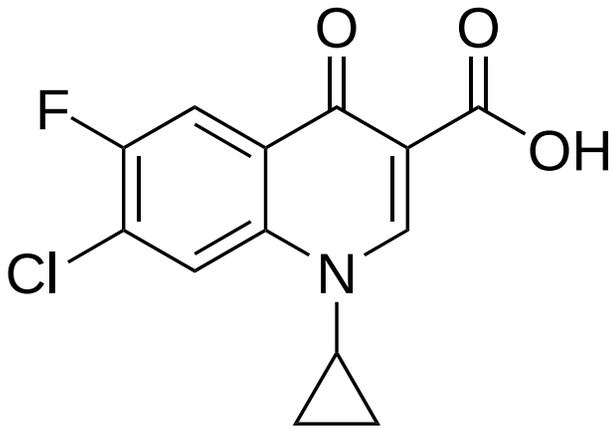
65

c)



66

d)



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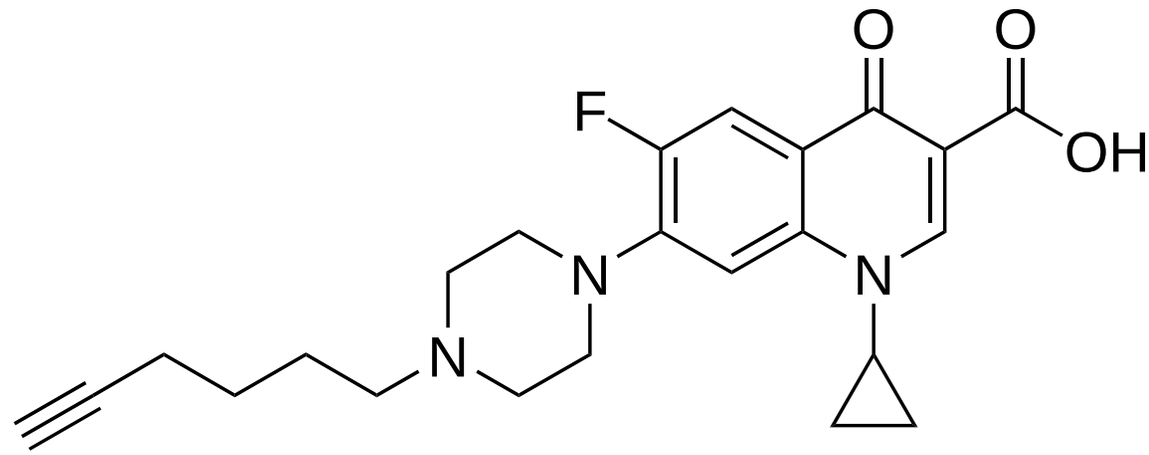
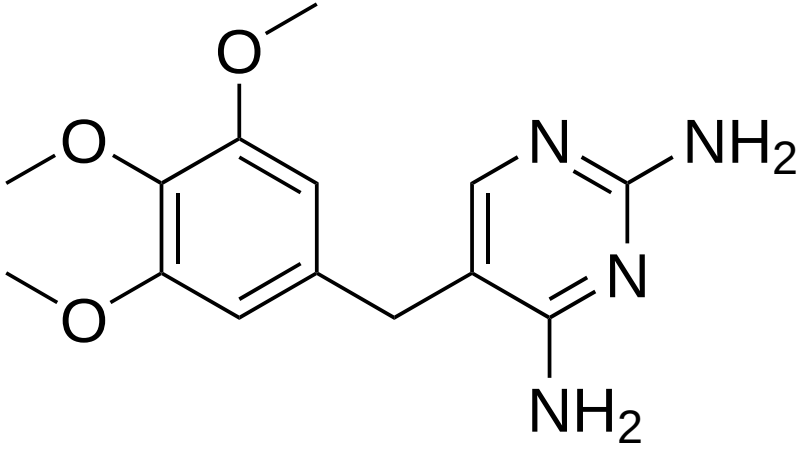
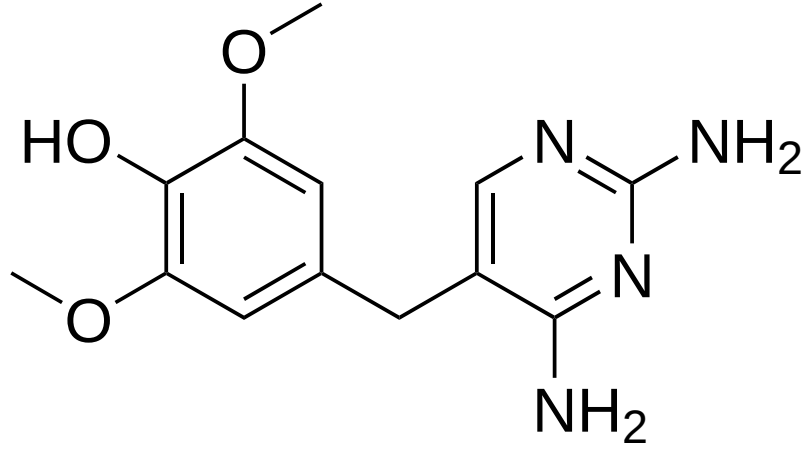


68



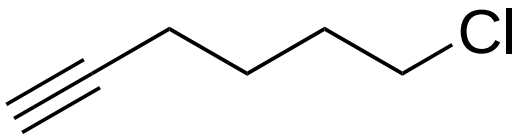
25

a)

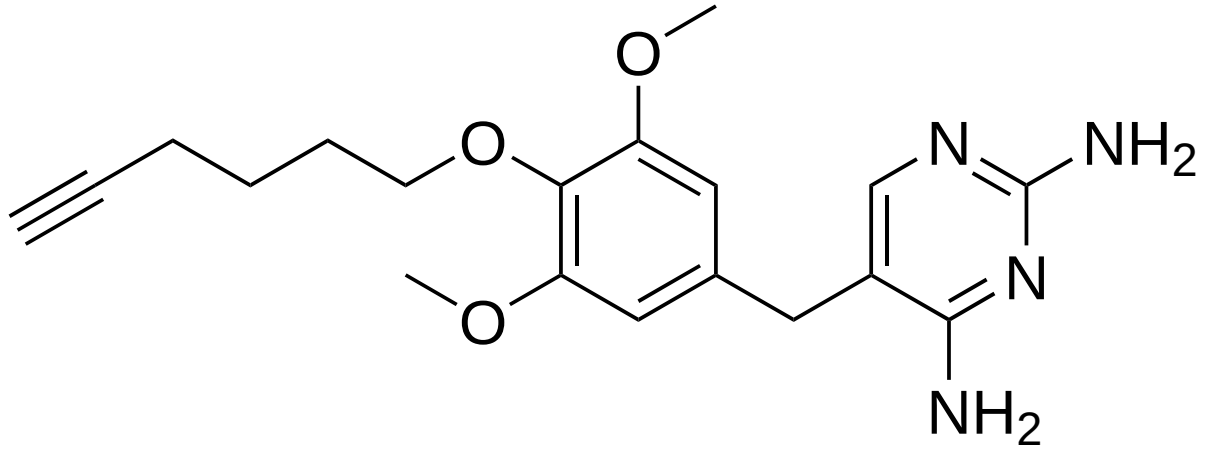


69

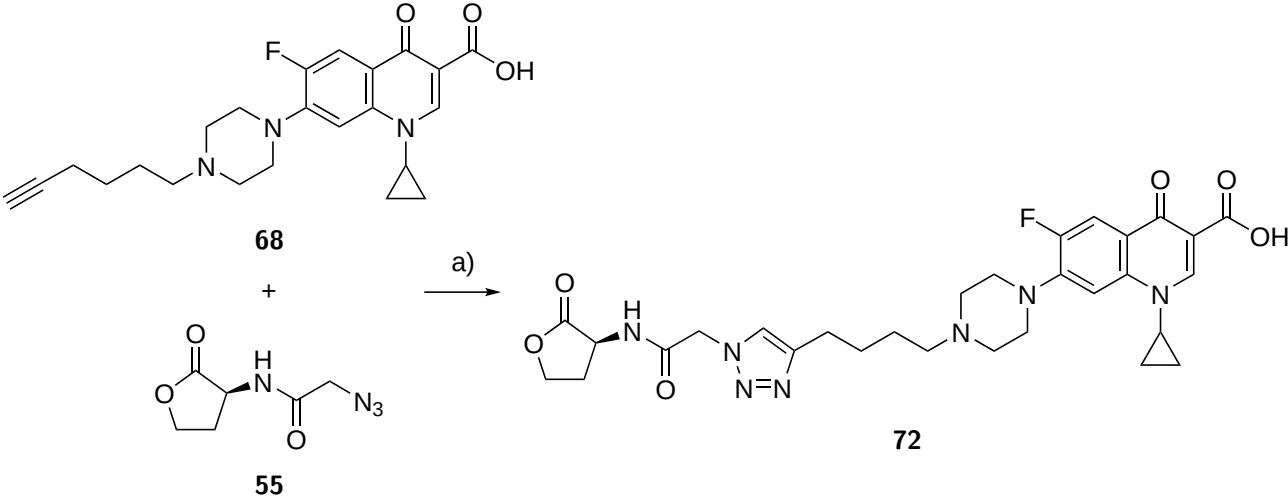
b)

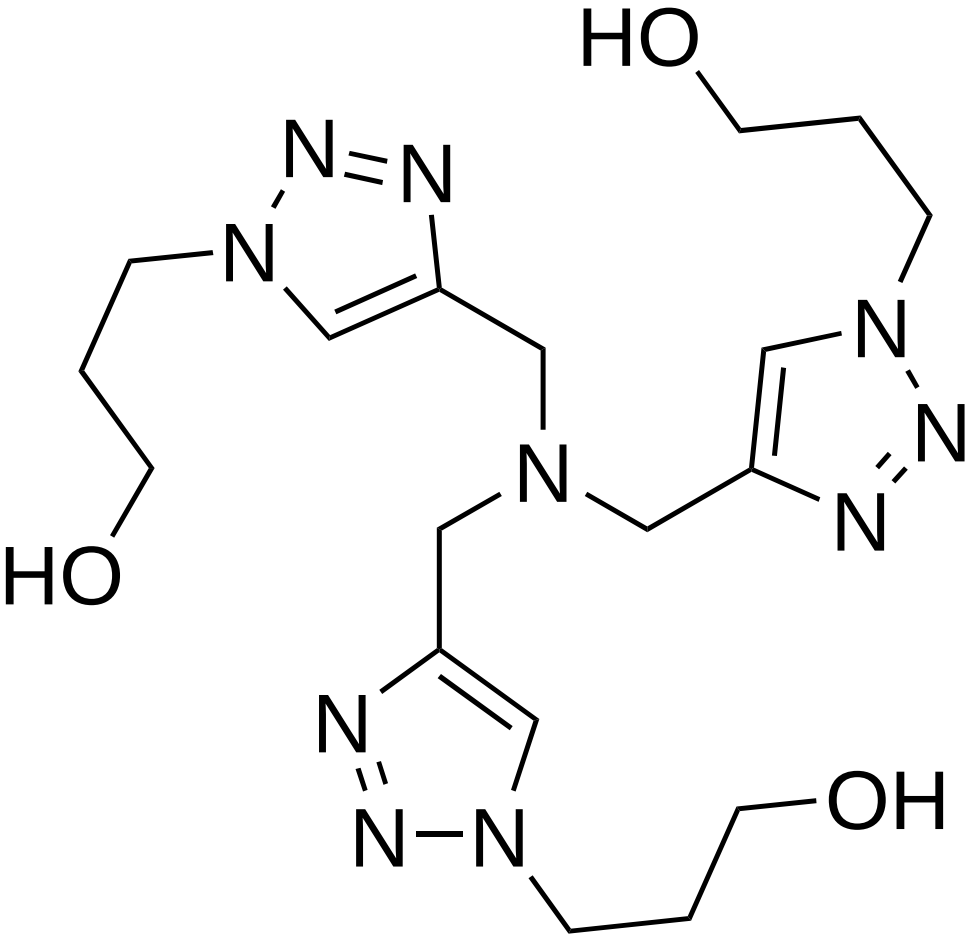


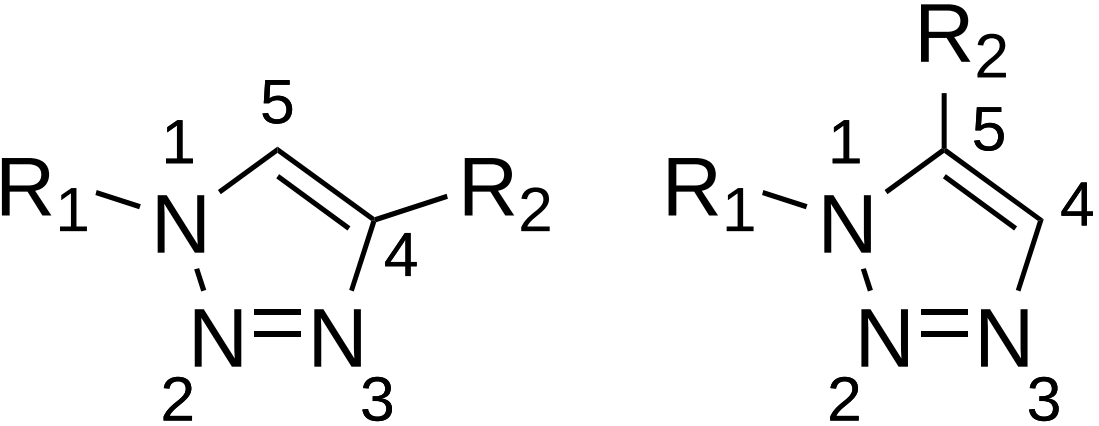
70

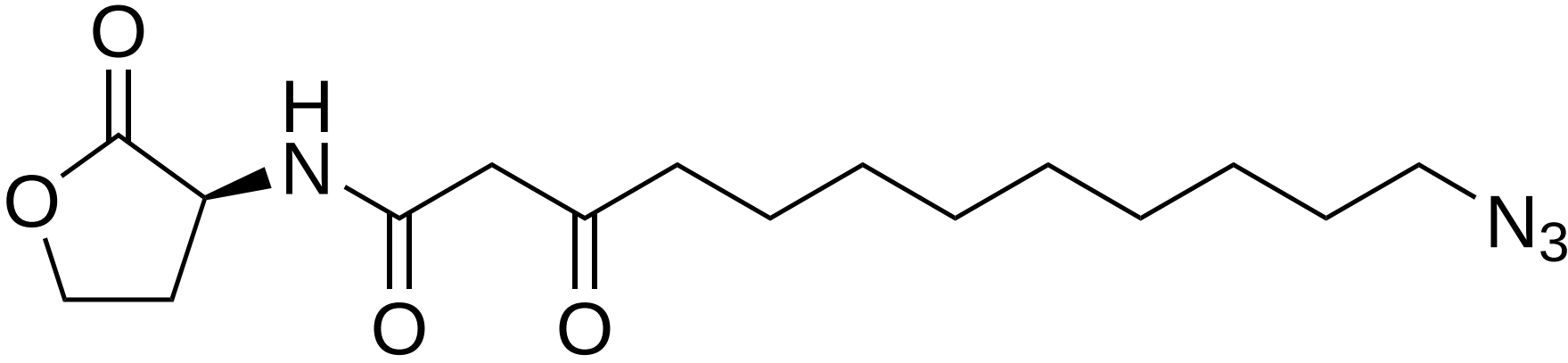


71

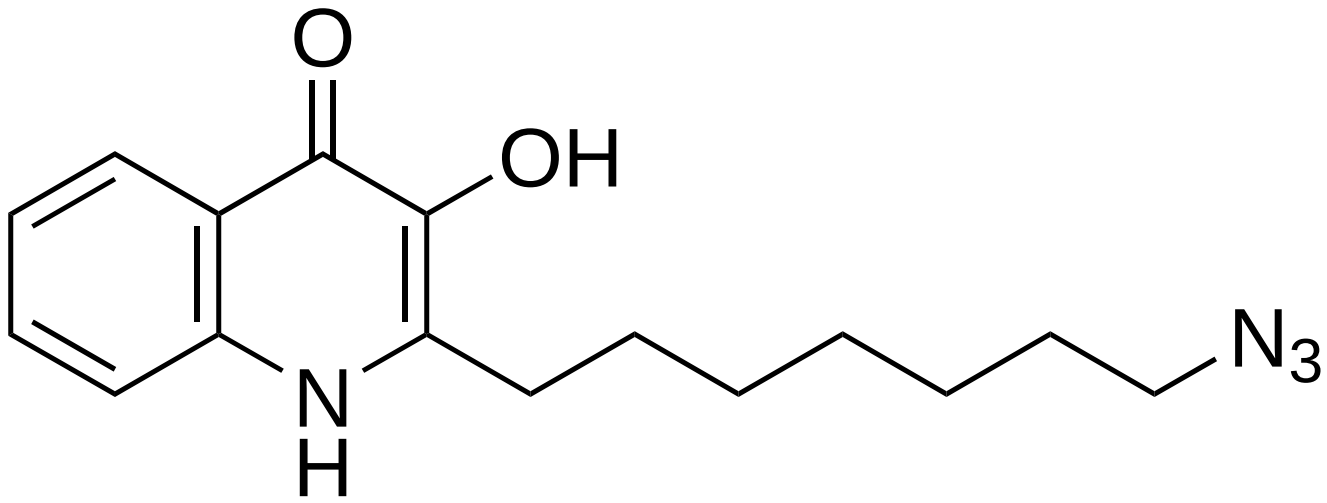

68
+
55
a)
72


HO
N
N
N
N
N
N
N
HO
N
N
N
N
OH

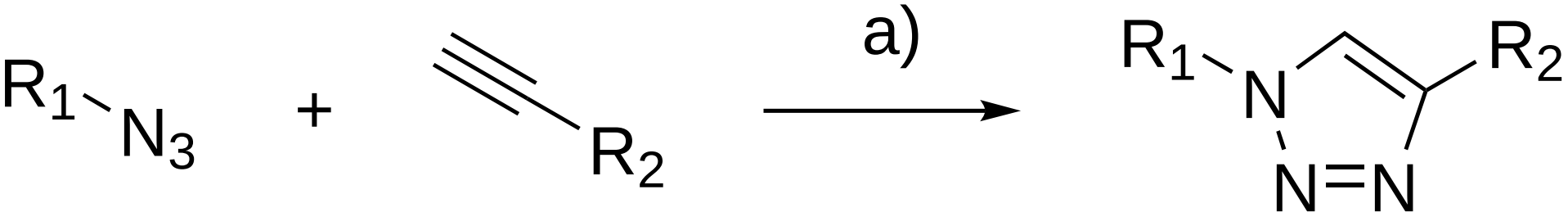

R1
1
5
R2
N
4
N=N
2
3
R2
R1
1
5
4
N
N=N
2
3

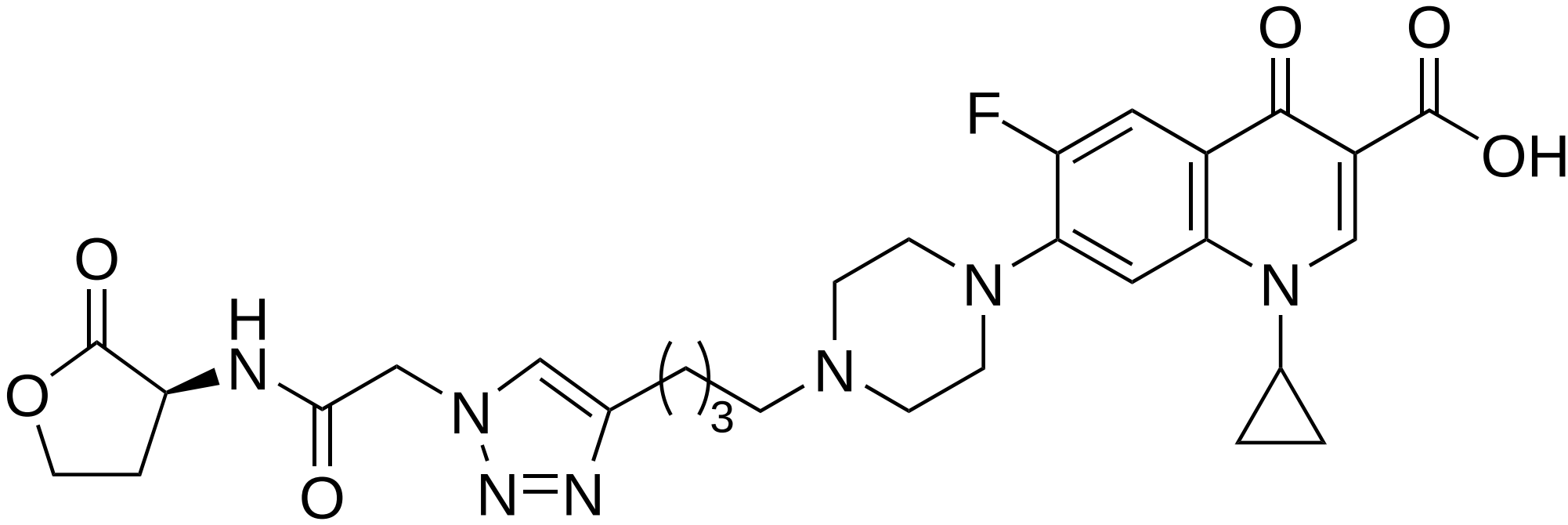


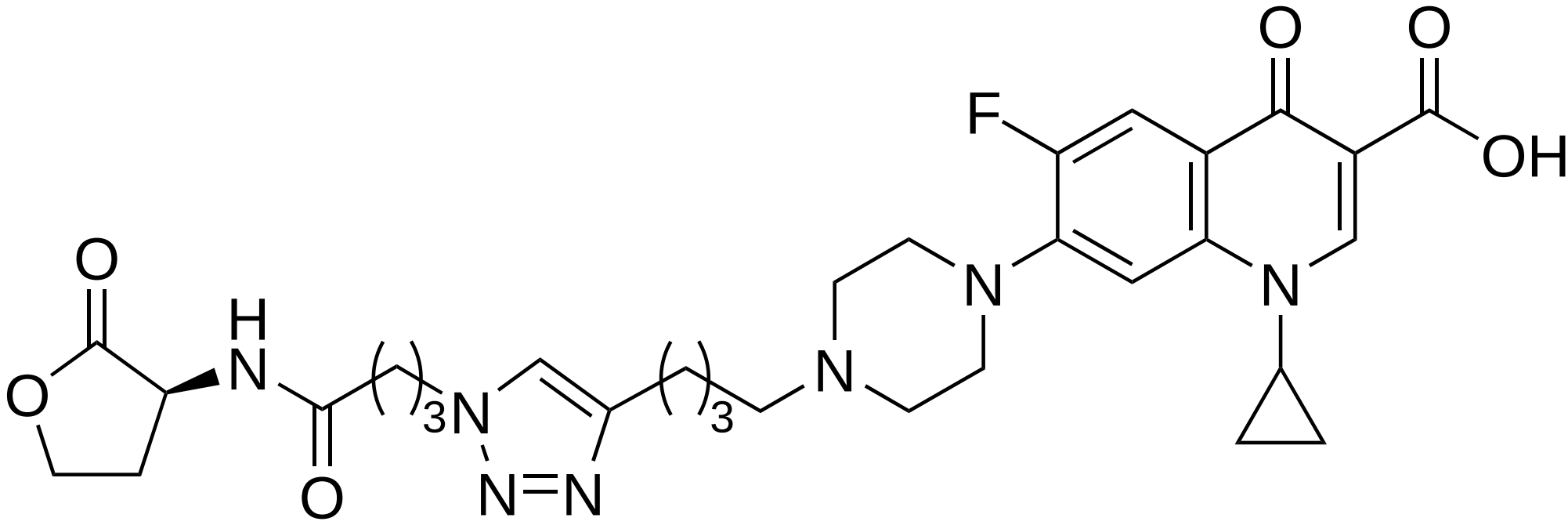
75

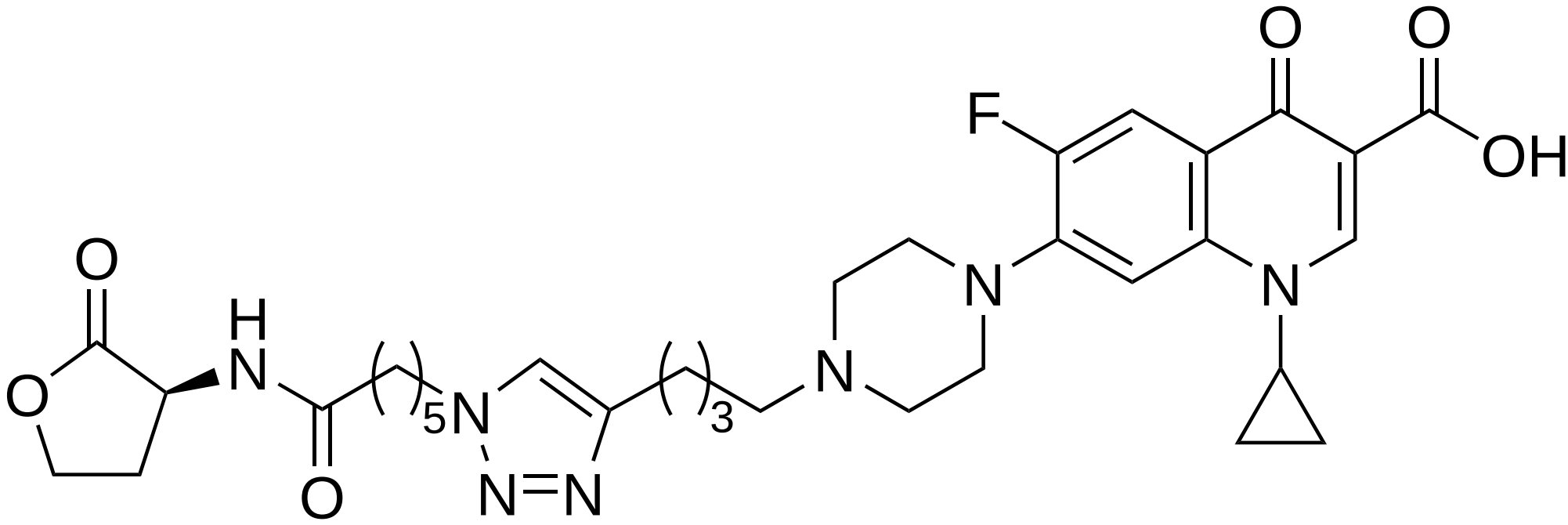


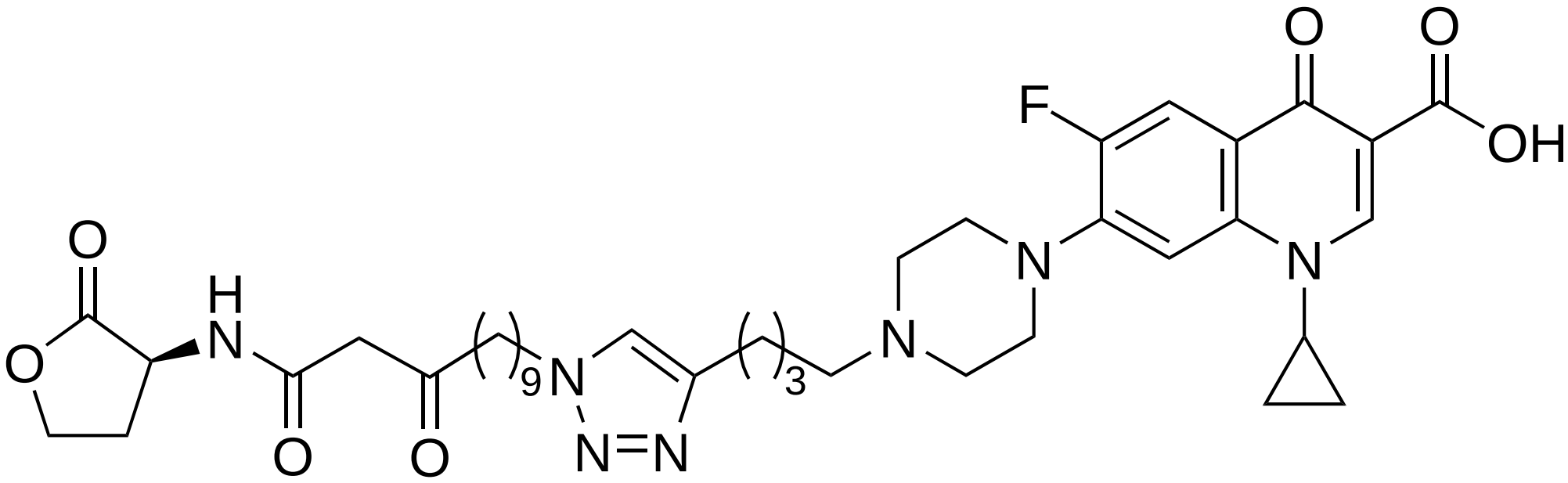
76

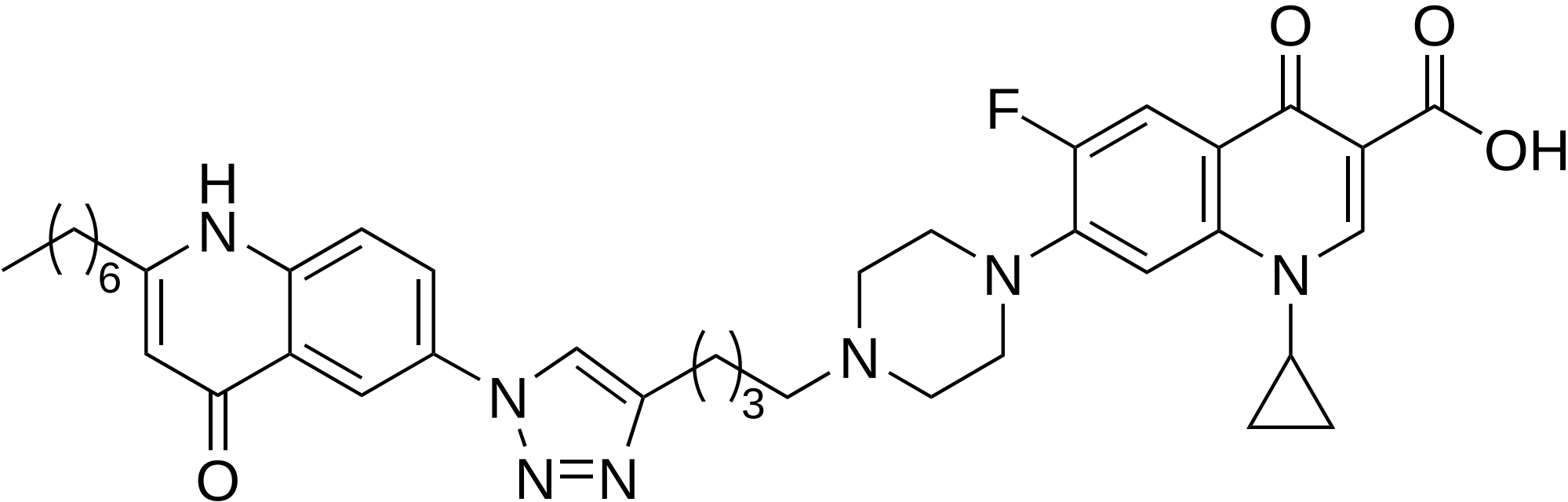

R1
N3
+
R2
a)
R1
N
R2
N=N

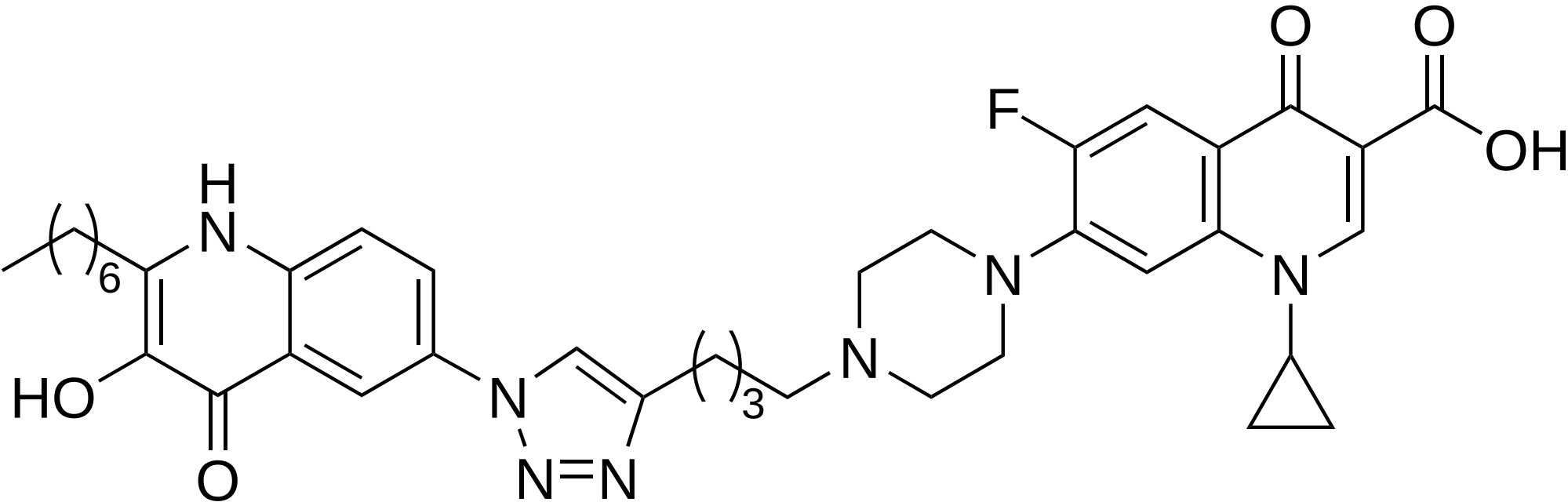

O
O
F
OH
O
H
N
N
N
N
N
N
3
O
N=N

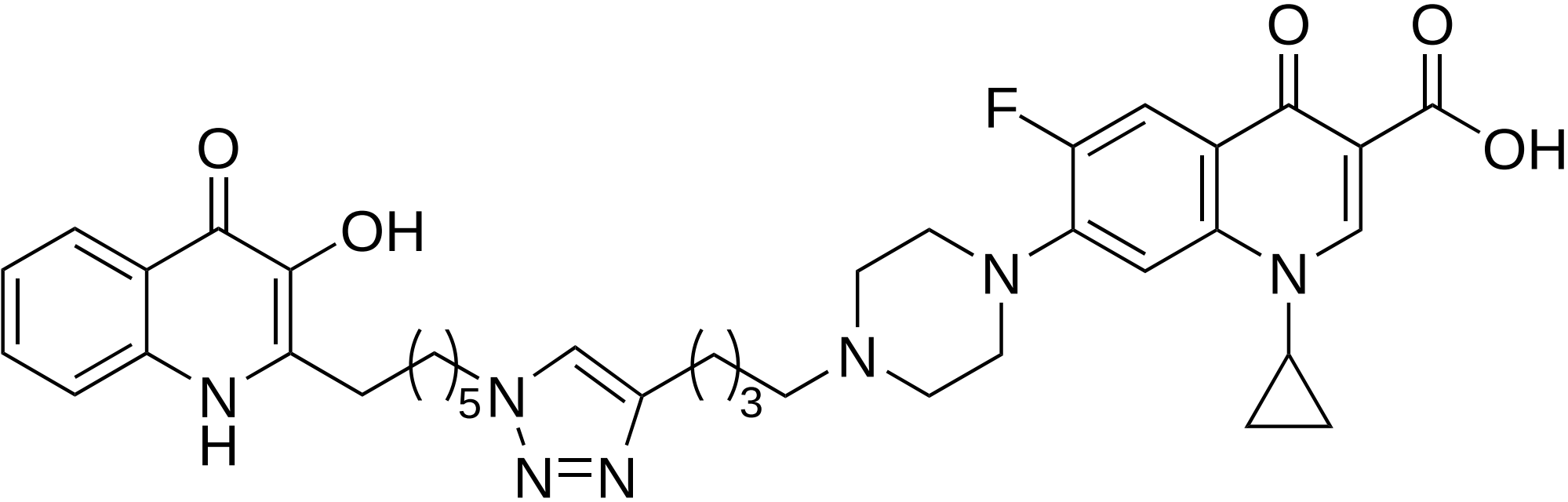

O
O
F
OH
O
H
N
N
N
N
3
3
N
N
O
O

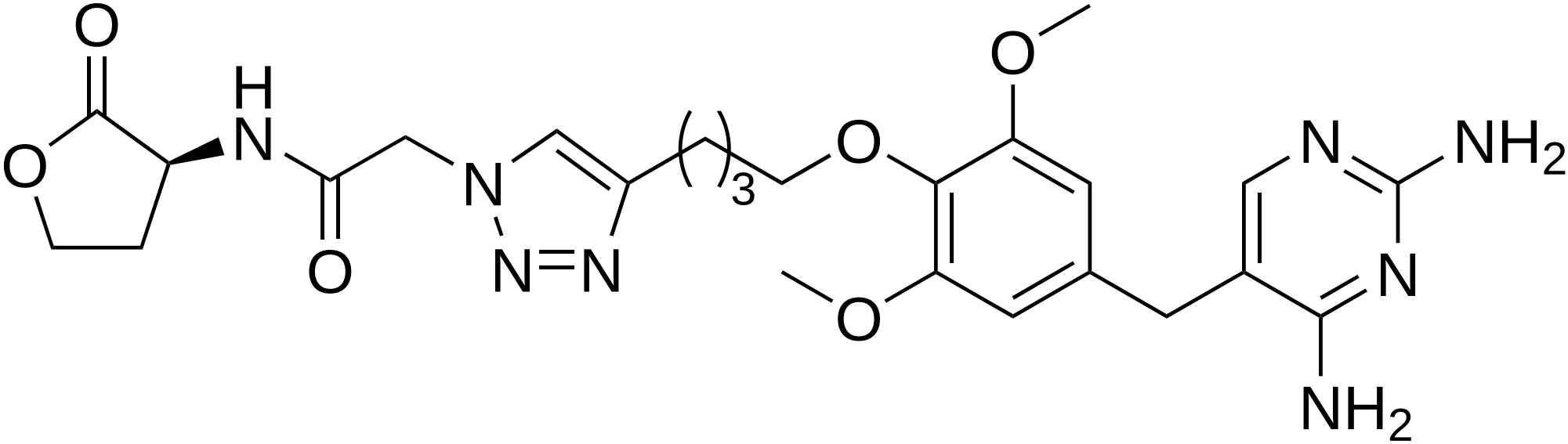

O
O
F
OH
O
H
N
N
N
5
N
N
3
N
O
O

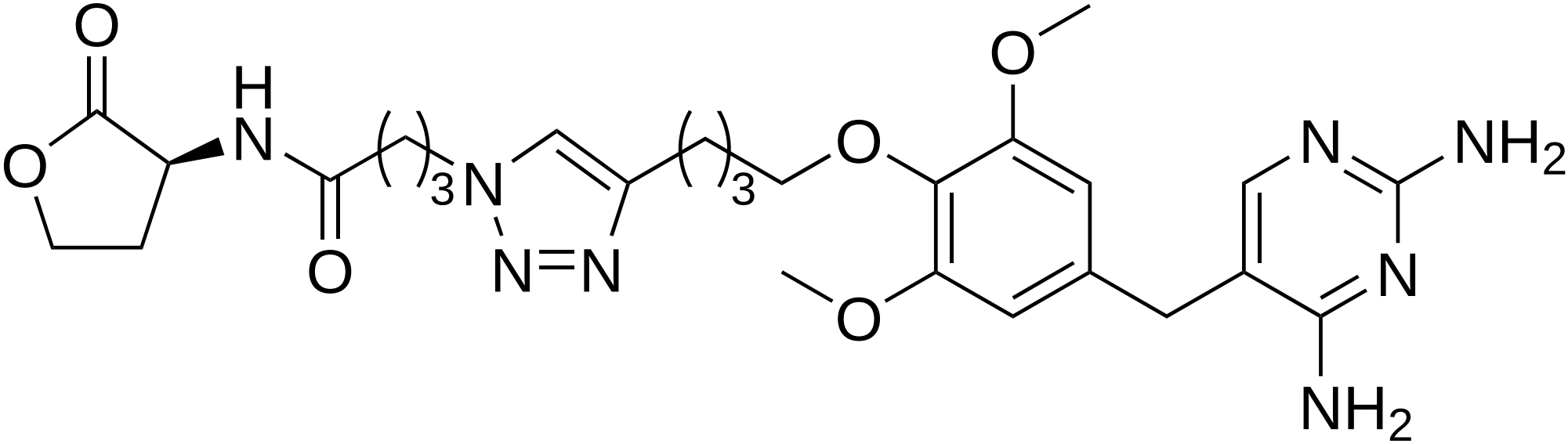


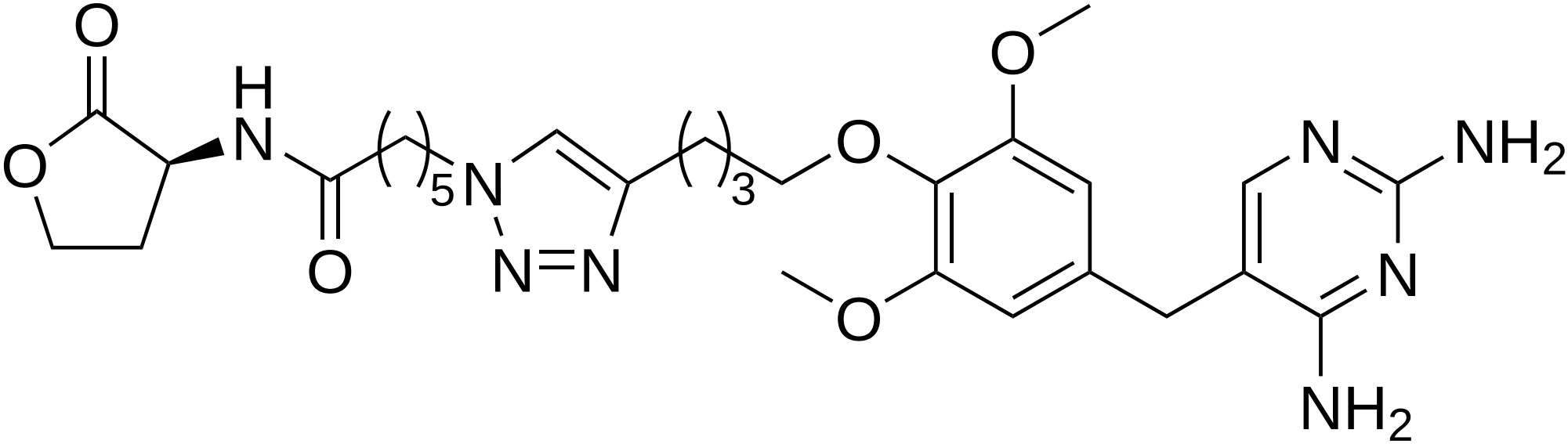

H
N
6
O
N
N=N
3
N
N
F
O
O
OH
N

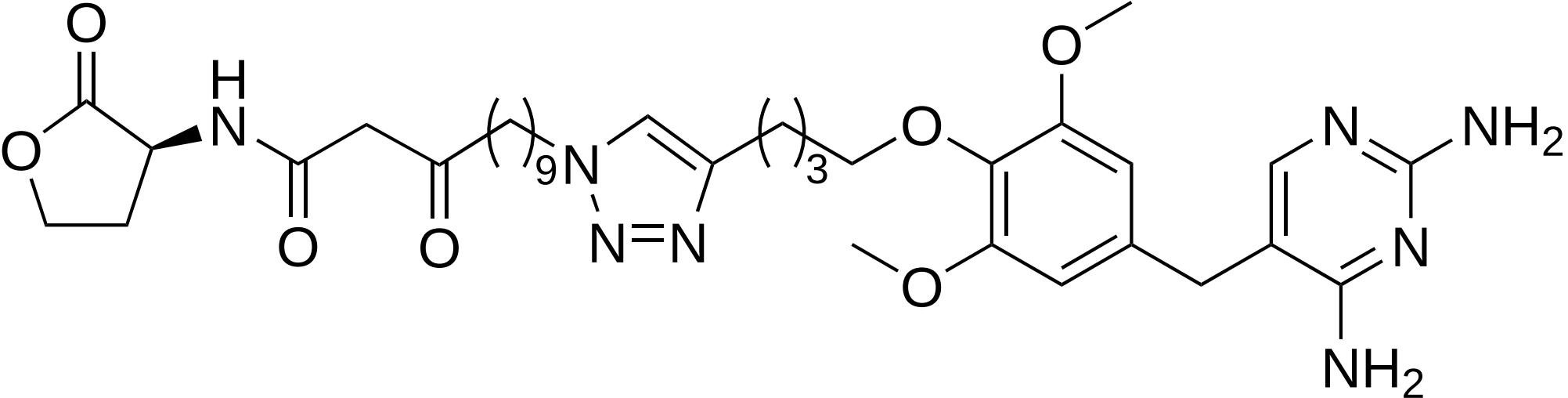

O
O
F
OH
H
N
6
HO
N
N
N
3
N
N
O

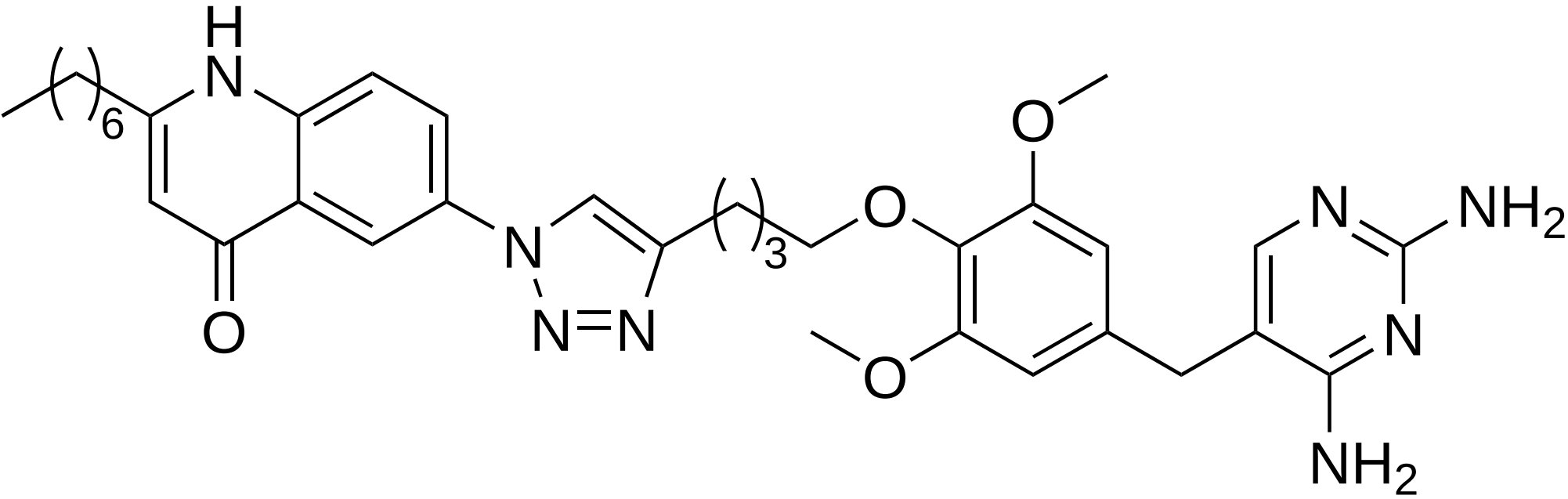


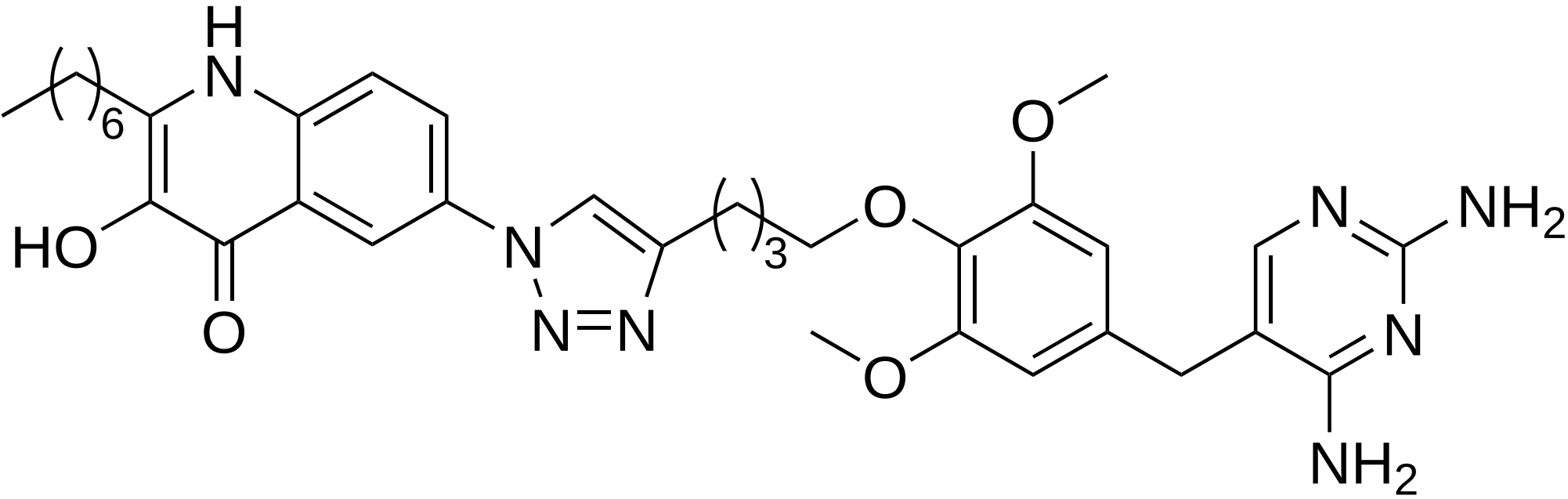


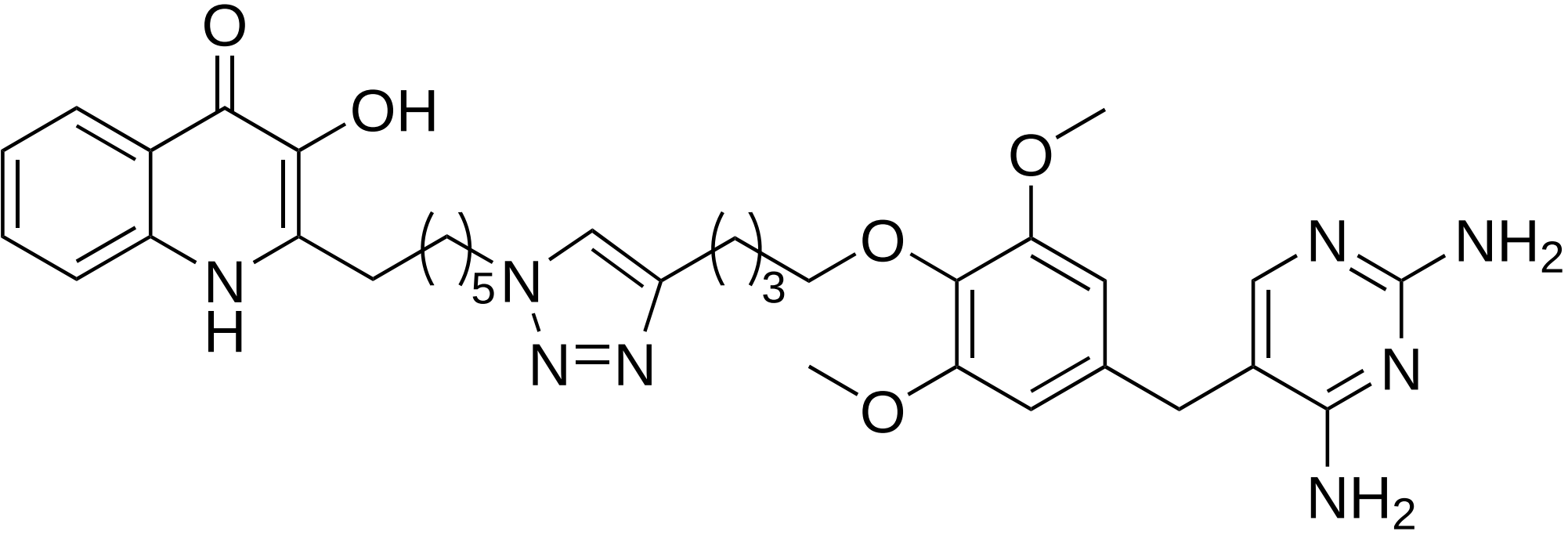


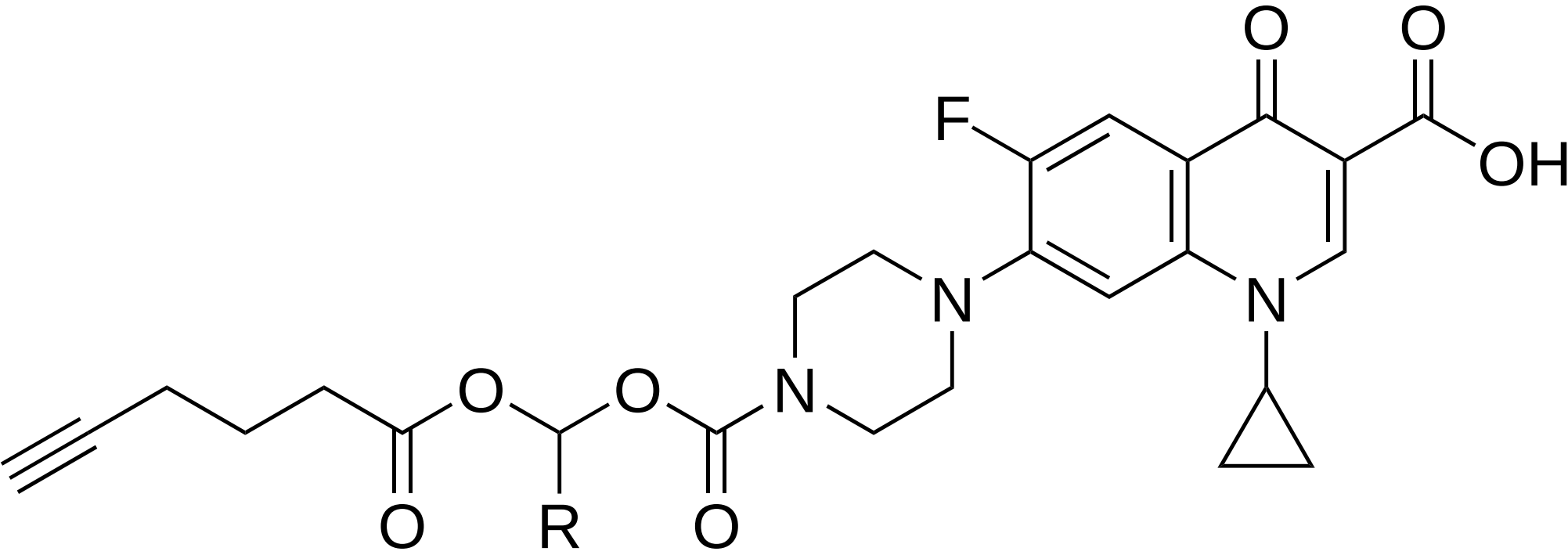






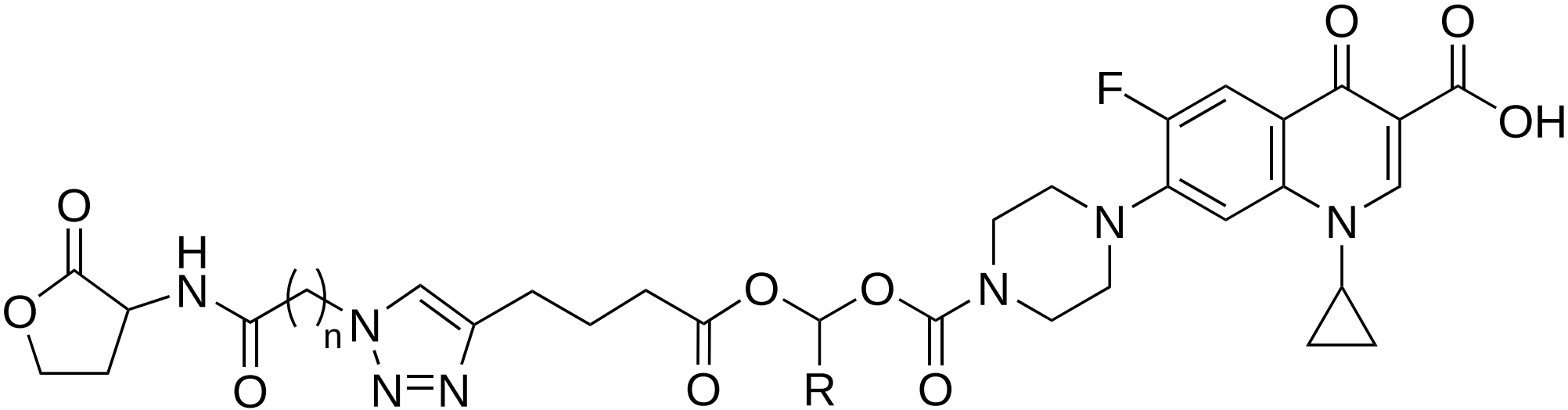



O
OH
N
H
5
N
N=N
3
O
O
O
N
NH2
N
NH2

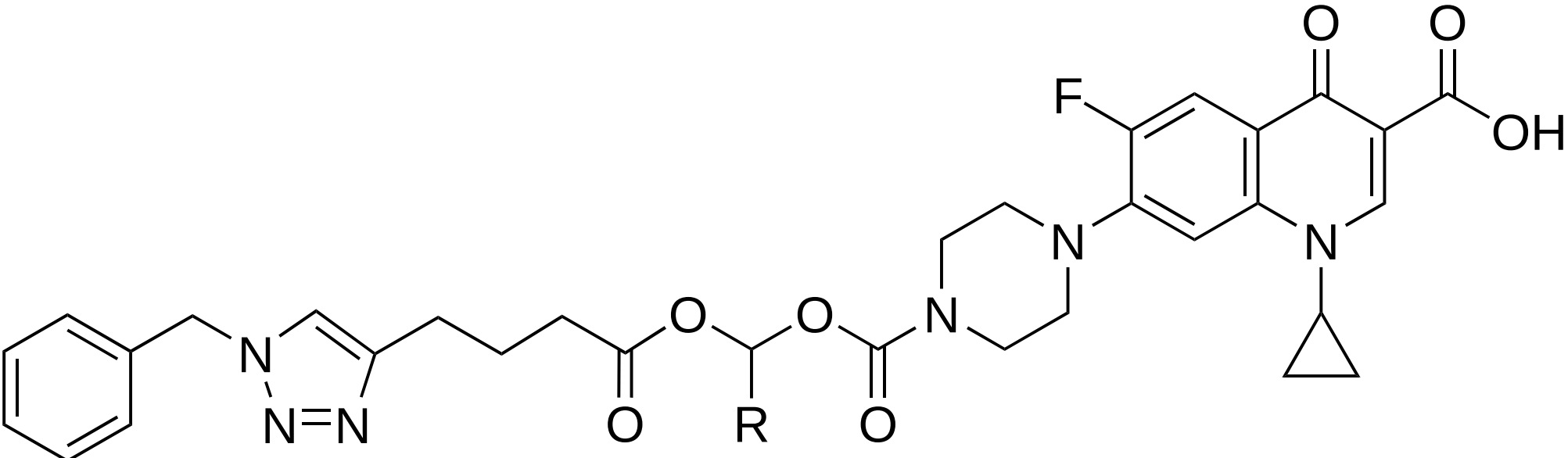


R = H **90**

R = Me **91**

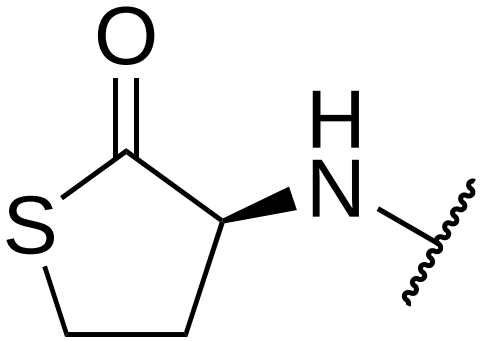


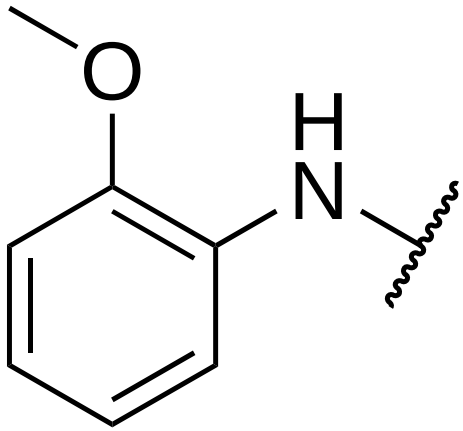
n = 1, R = H **92**
n = 3, R = H **93**
n = 5, R = H **94**
n = 1, R = Me **95**
n = 3, R = Me **96**
n = 5, R = Me **97**

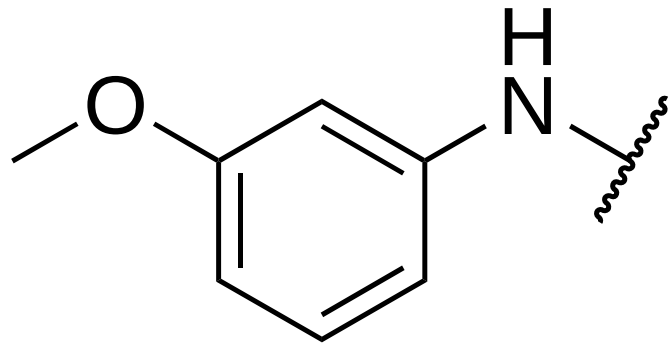


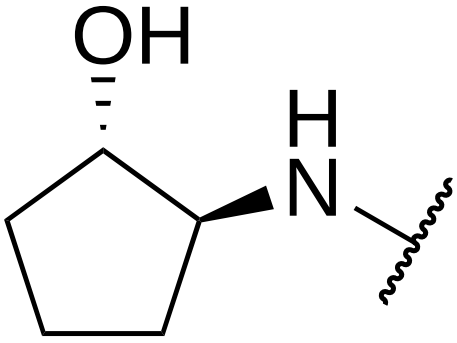
R = H **98**

R = Me **99**

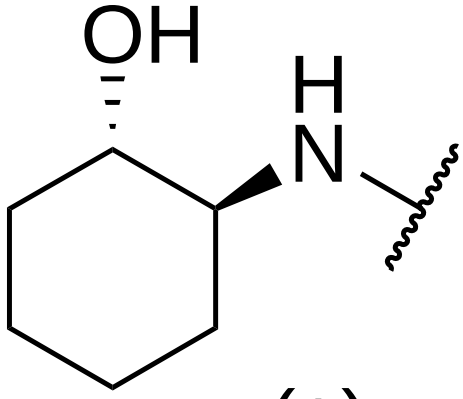




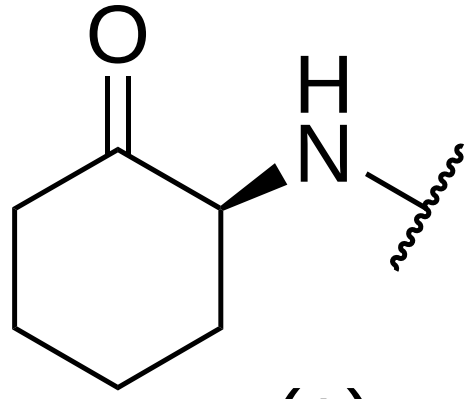




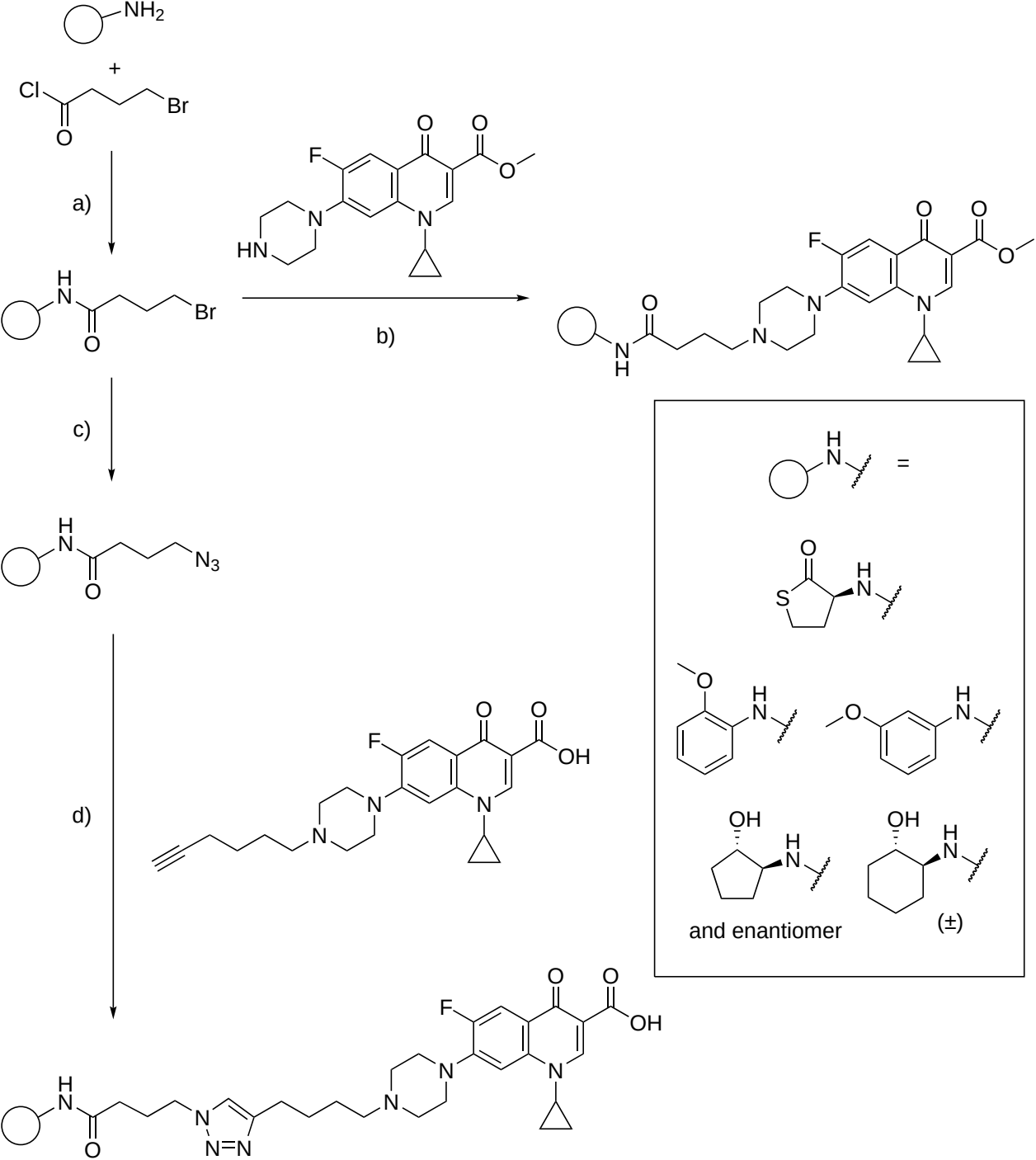
and enantiomer

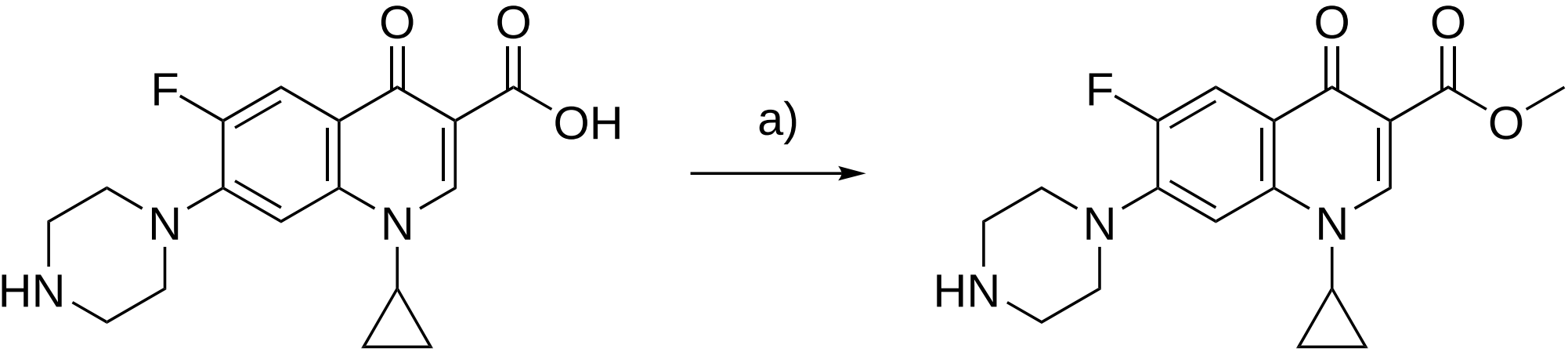


(±)

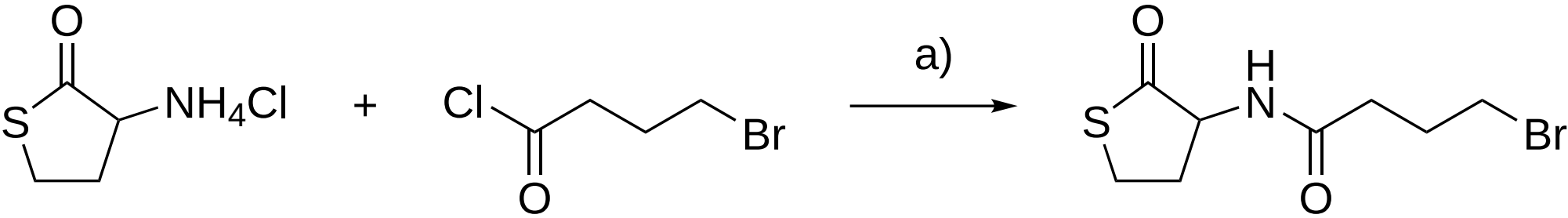


(±)

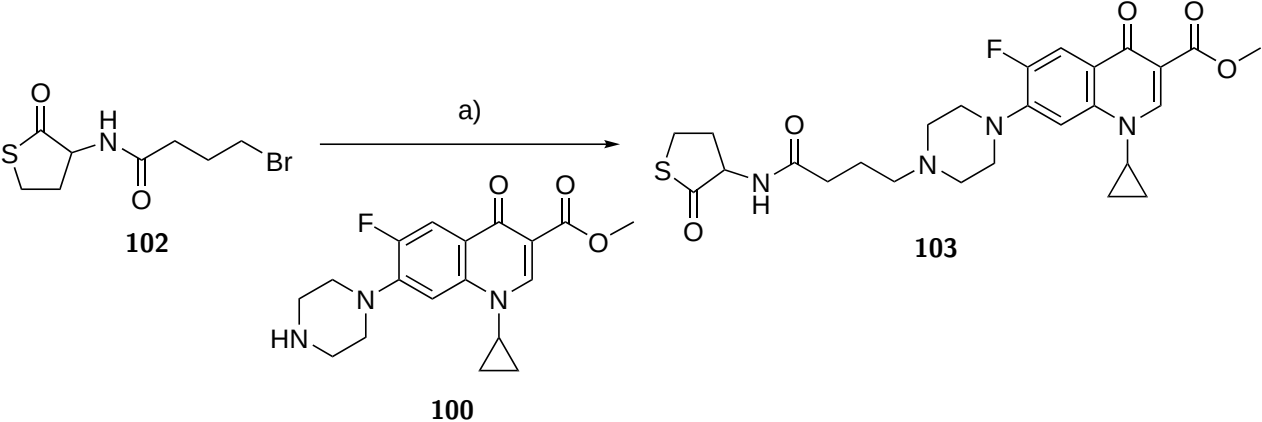

NH2
+
Cl
Br
O
a)
F
O
O
O
N
HN
N
H
N
Br
O
b)
F
O
O
O
N
N
N
H
N
c)
H
N
N3
O
=
S
O
H
N
O
H
N
O
H
N
OH
H
N
OH
H
N
and enantiomer
(±)
d)
F
O
O
OH
N
N
N
F
O
O
OH
N
N
N
H
N
O
N
N=N



24 **100**



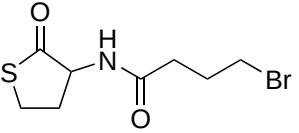
101 **56** **102**



102

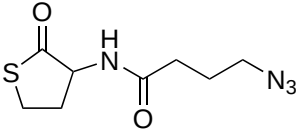
100

103



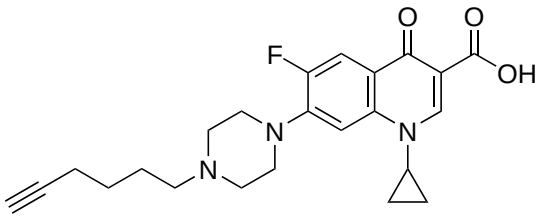
102

a)

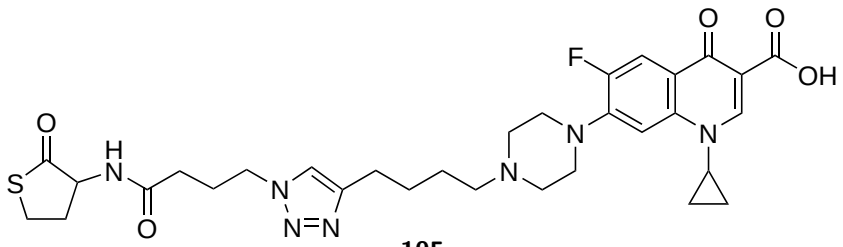


104

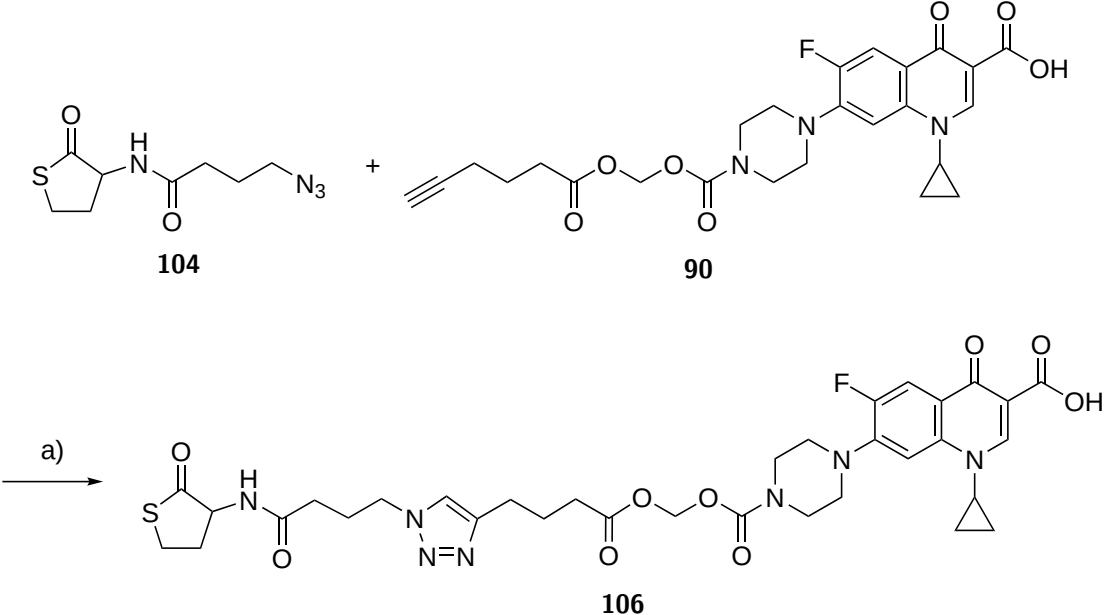
b)

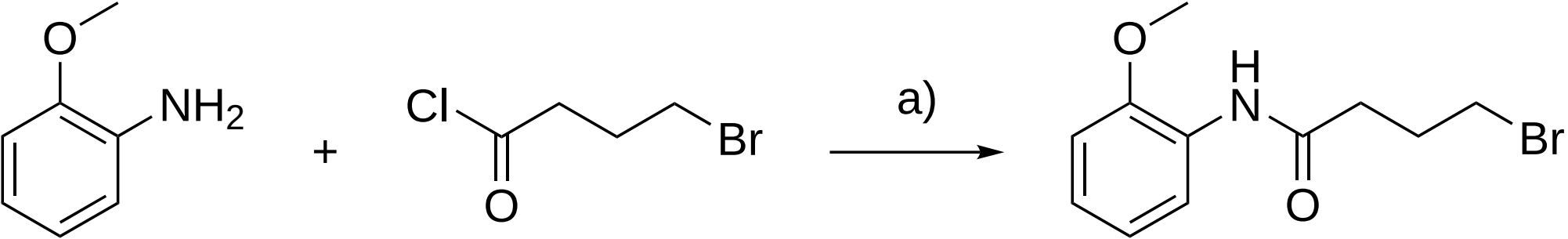


68

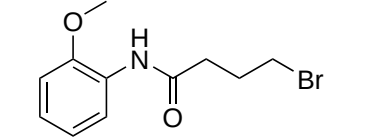


105


O
S
H
N
N3
O
104
+
F
O
O
OH
N
N
O
O
O
O
N
O
90
a)
106

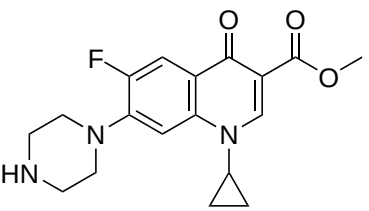


107 **56** **108**



108

+



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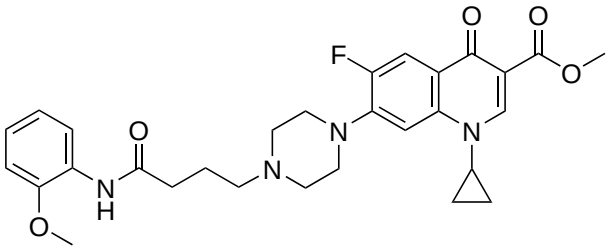
a)



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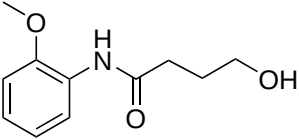
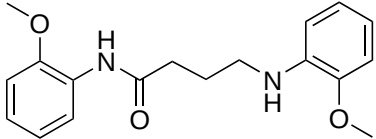
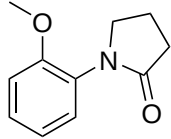
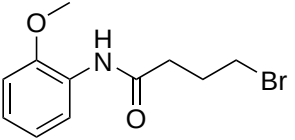
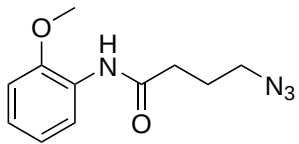

O
H
N
O
OH

O
H
N
O
N
H
O

O
N
O



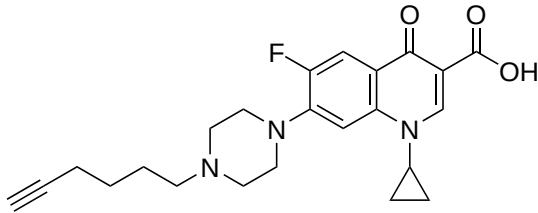
108

a)

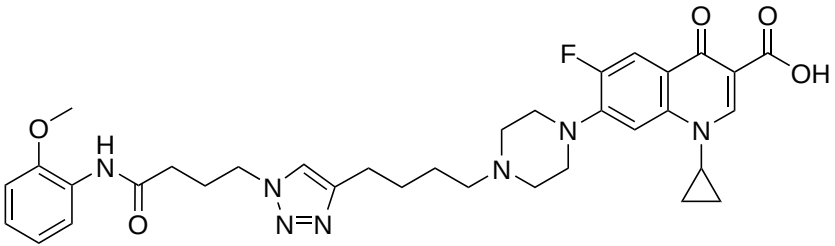


110

b)

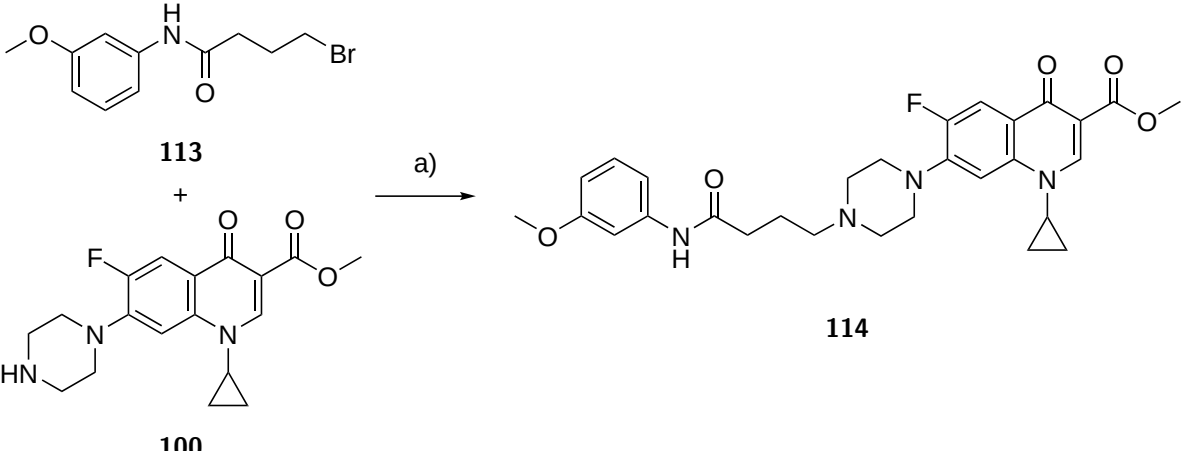


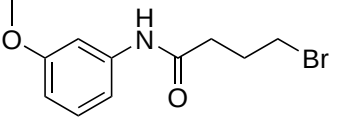
68



111

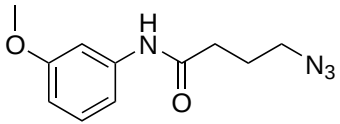
112 **56** **113**


O
H
N
Br
O
113
+
a)
F
O
O
O
N
HN
N
100
O
N
H
O
N
N
F
O
O
O
N
114



113

a)



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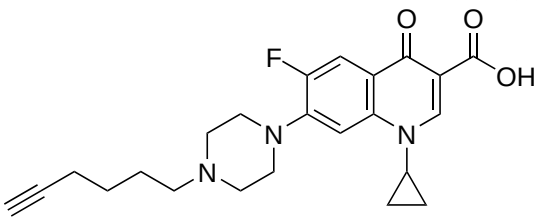
b)



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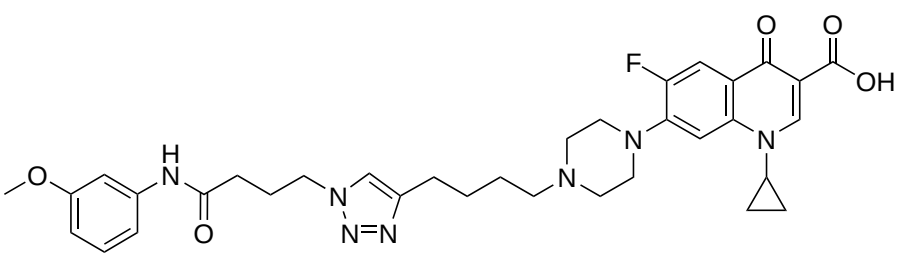
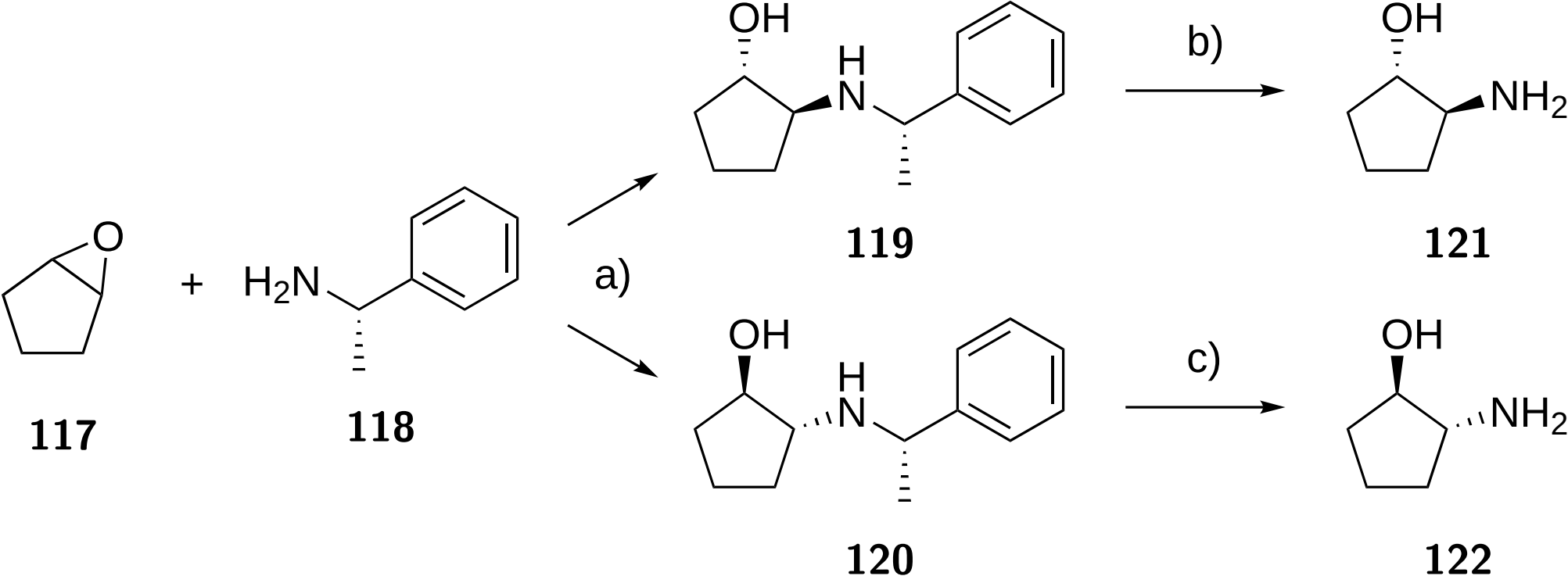
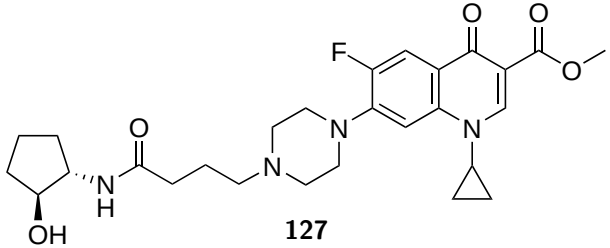
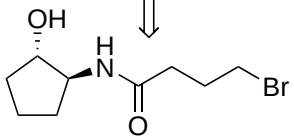


116


O
+
H2N
117
118
a)
OH
H
N
119
120
b)
c)
OH
NH2
121
122



127
128



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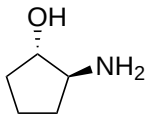

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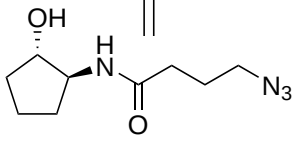
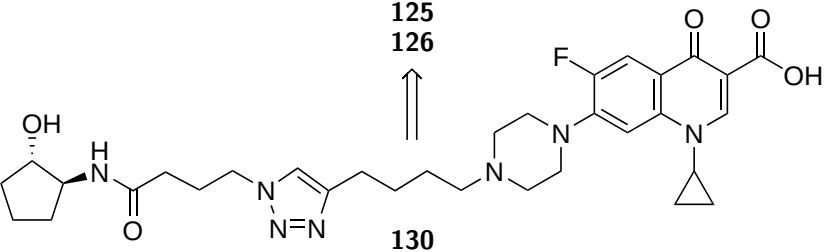
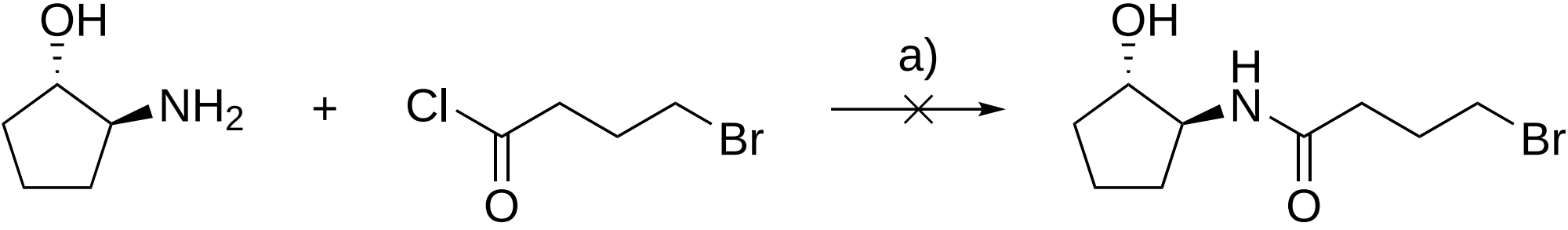
122



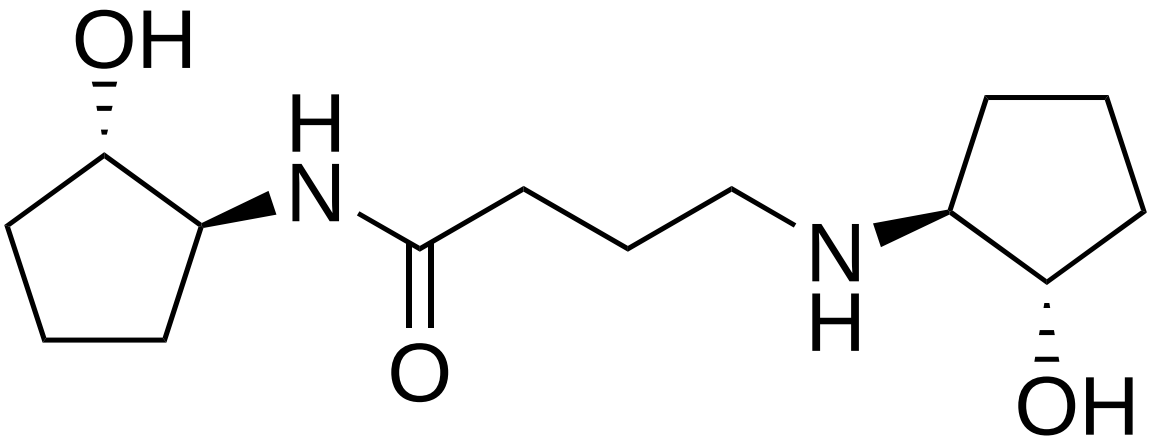
125
126

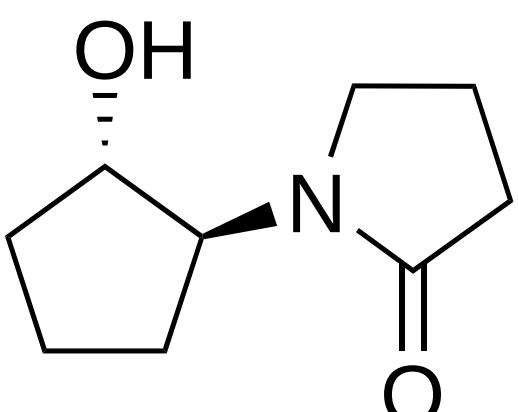


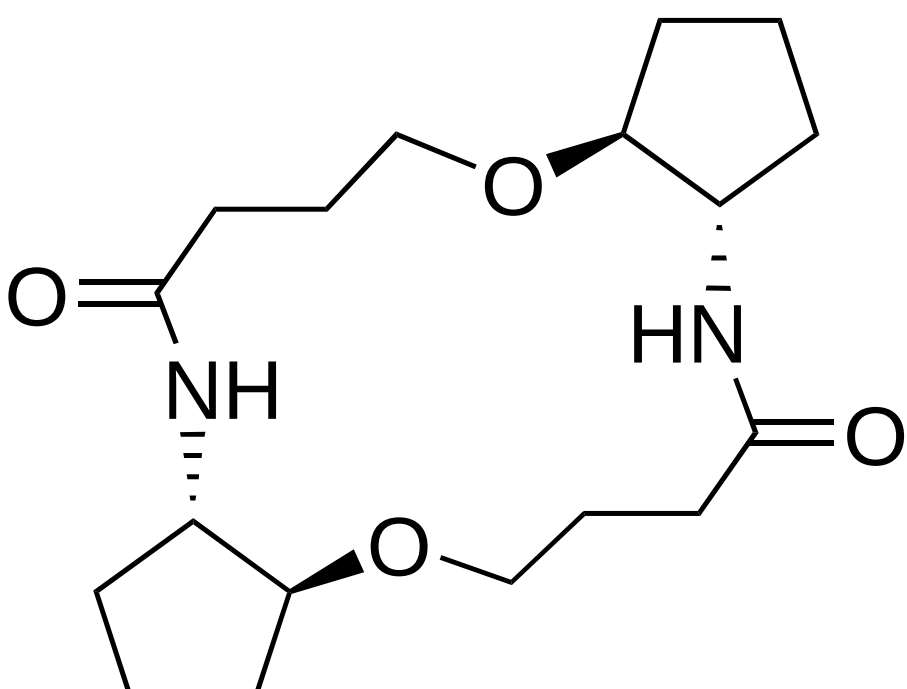
130
131

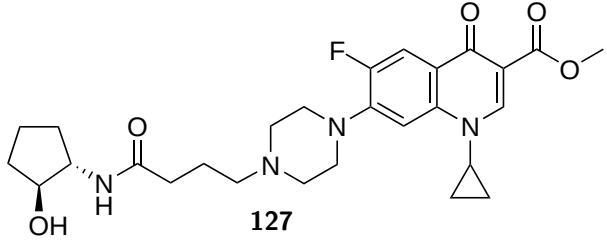


121 **56** **123**

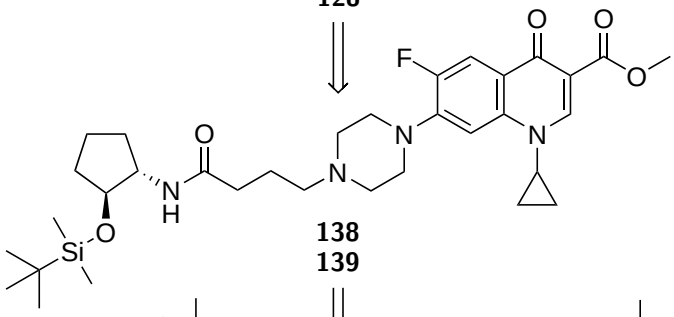

OH
H
N
O
N
H
OH


OH
N
O


O
O
NH
HN
O
O



127
128



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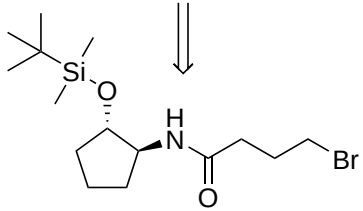

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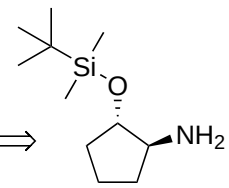
135



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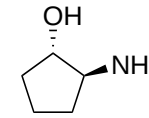
133



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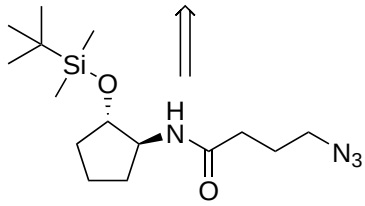
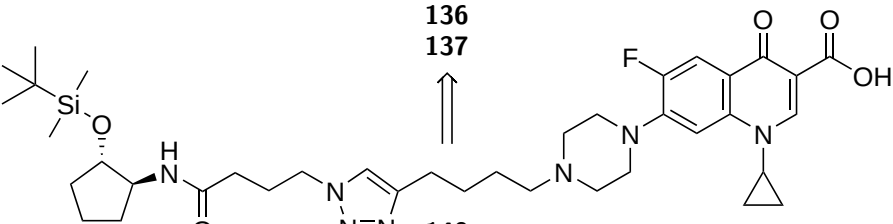
122



136
137



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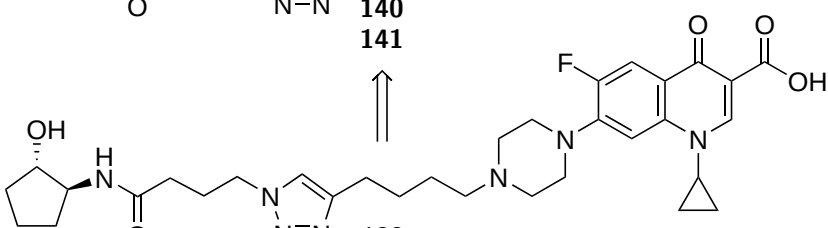
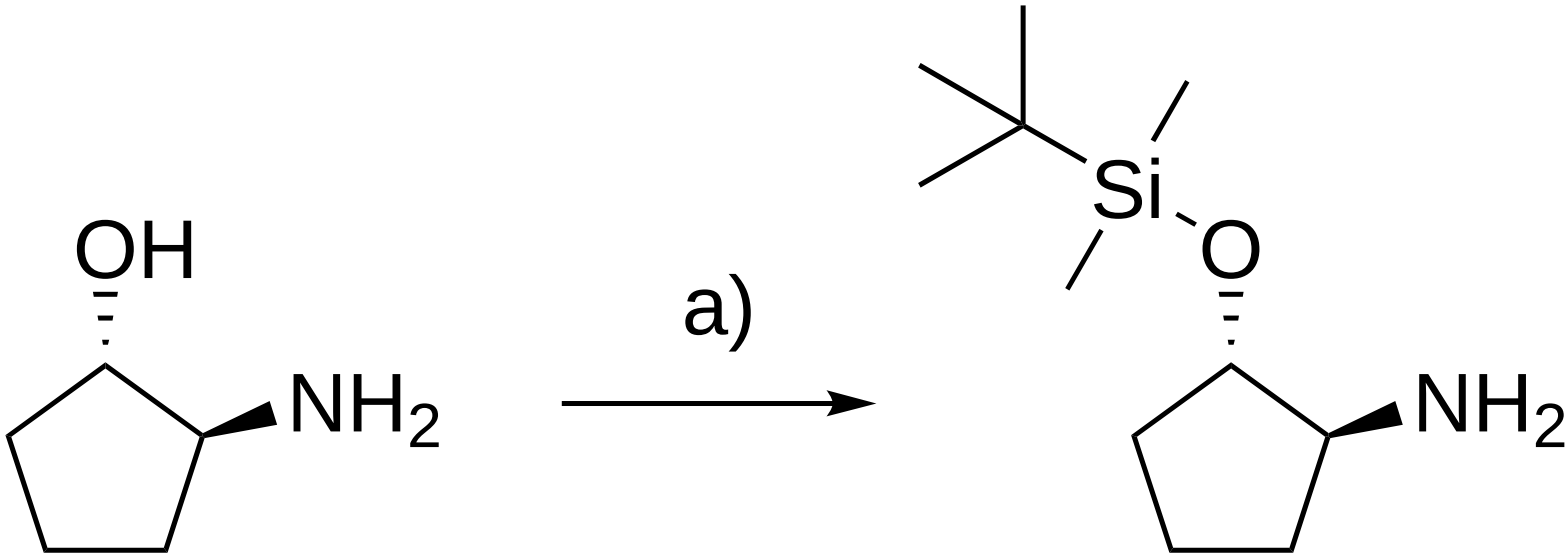
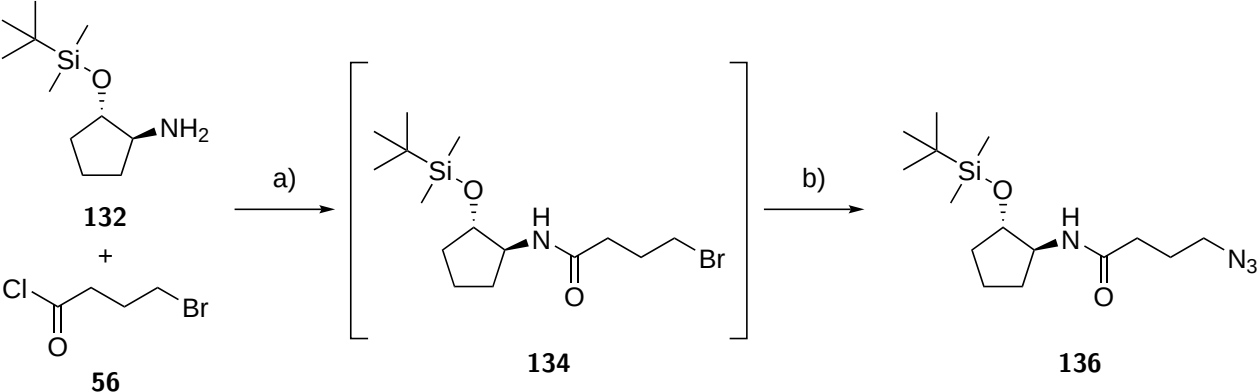


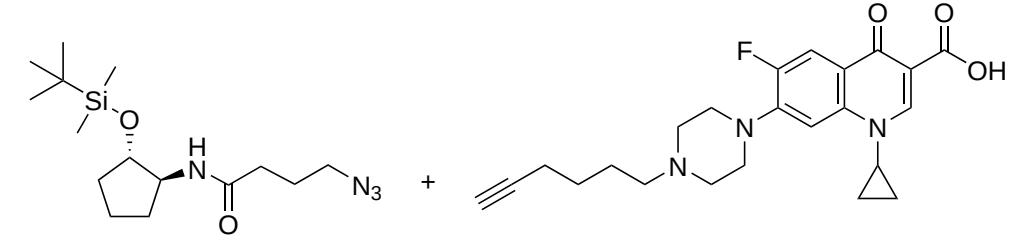
130
131



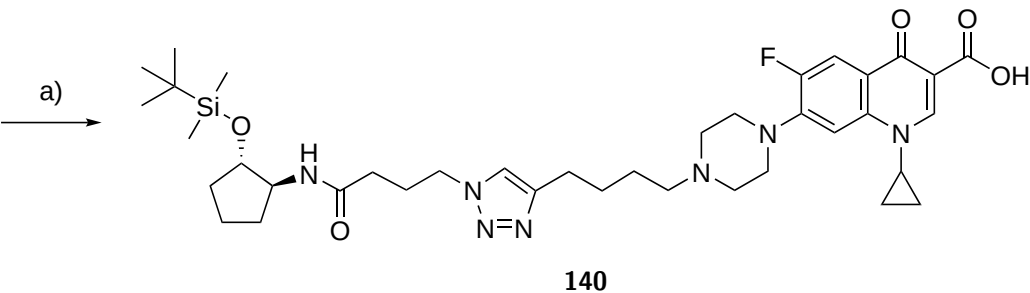
121 **132**

132 **56** **134**

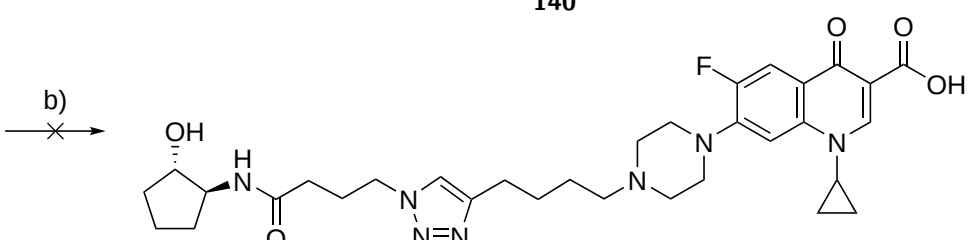

Si
O
NH2
132
+
Cl
O
Br
56
a)
Si
O
H
N
O
Br
134
b)
Si
O
H
N
O
N3
136



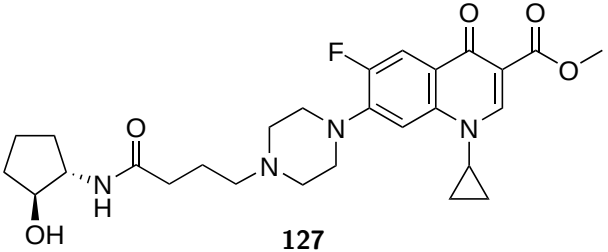
136 **68**



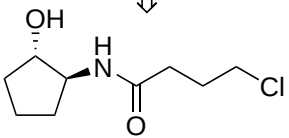
140



130



127
128



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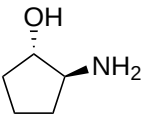

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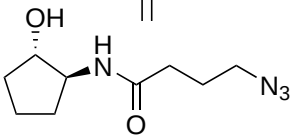

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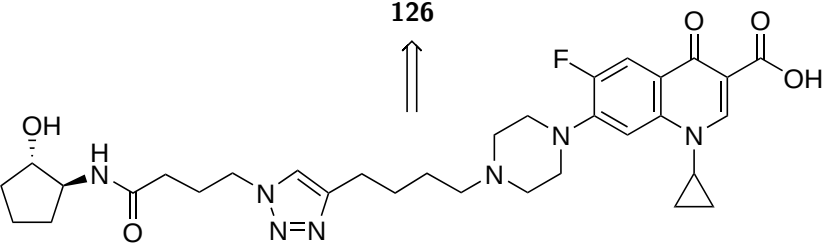

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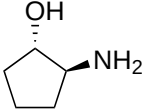

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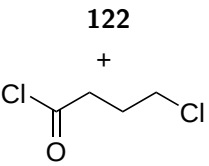

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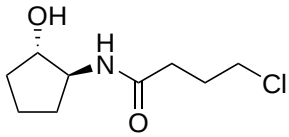

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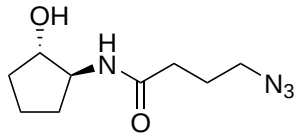

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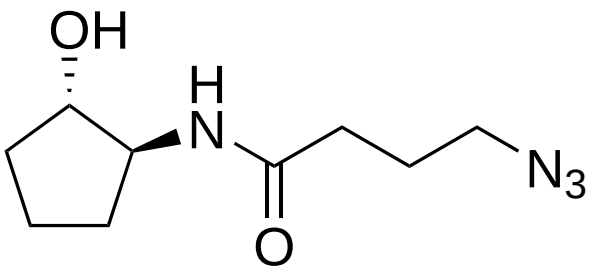

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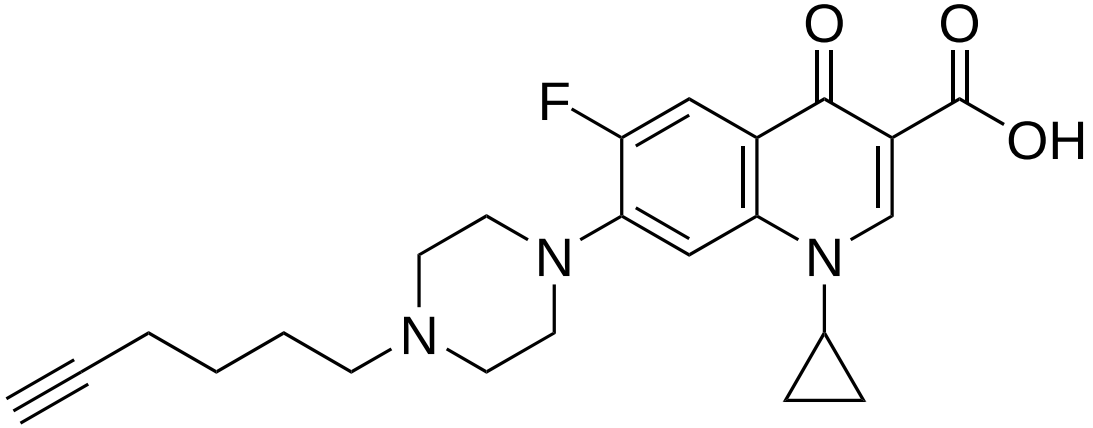

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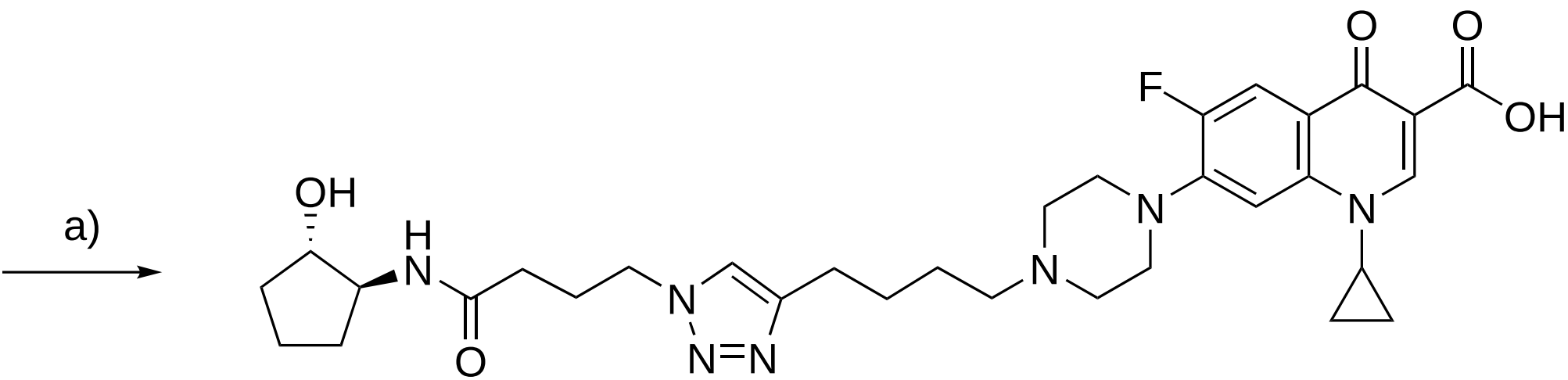
a)



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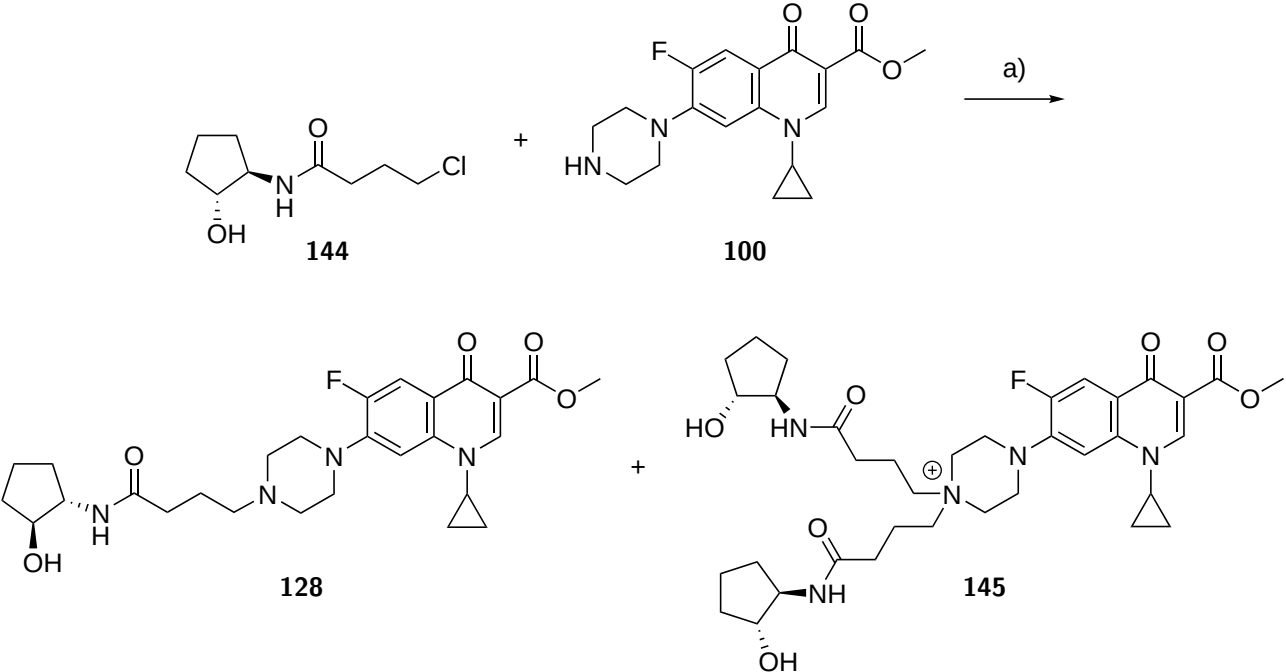
a)
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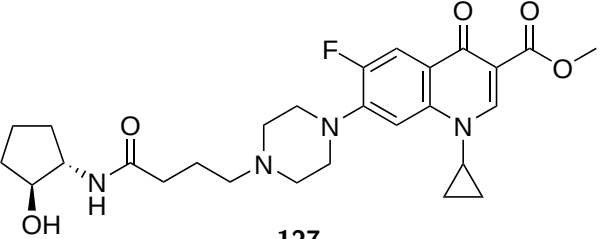

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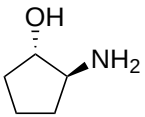

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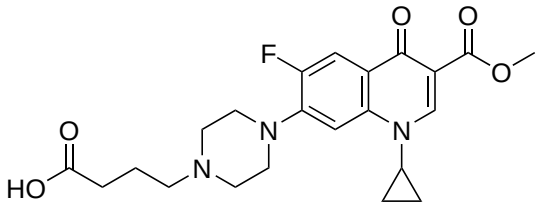

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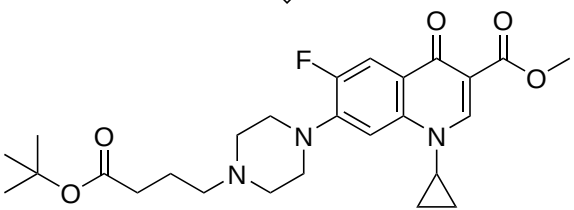

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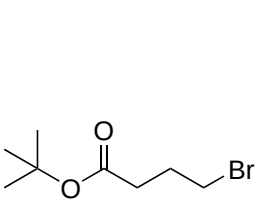

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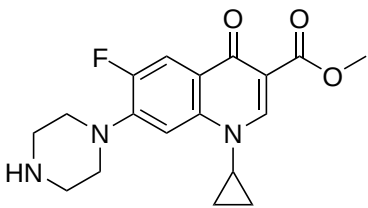

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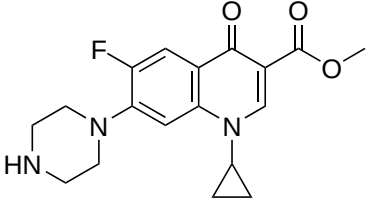

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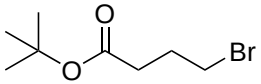
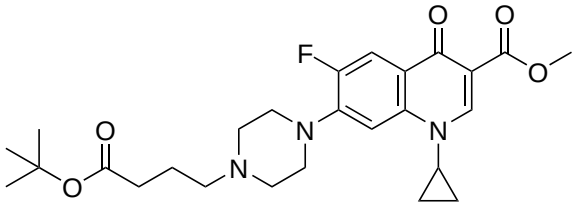


146

a)



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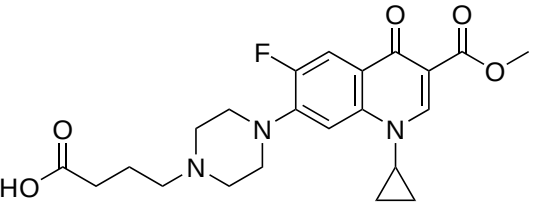
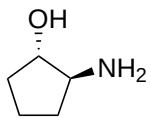
b)



148

c)



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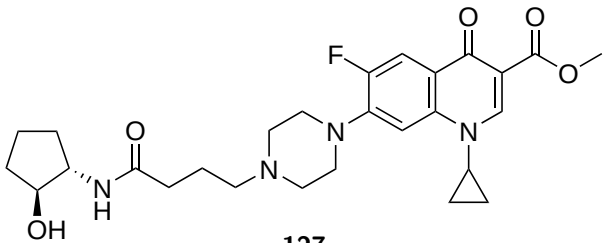

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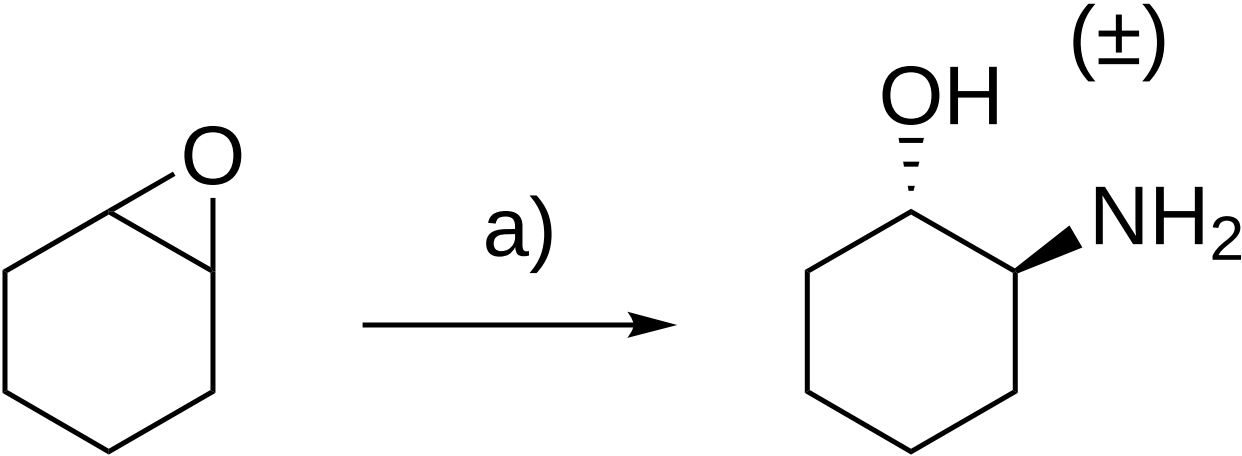
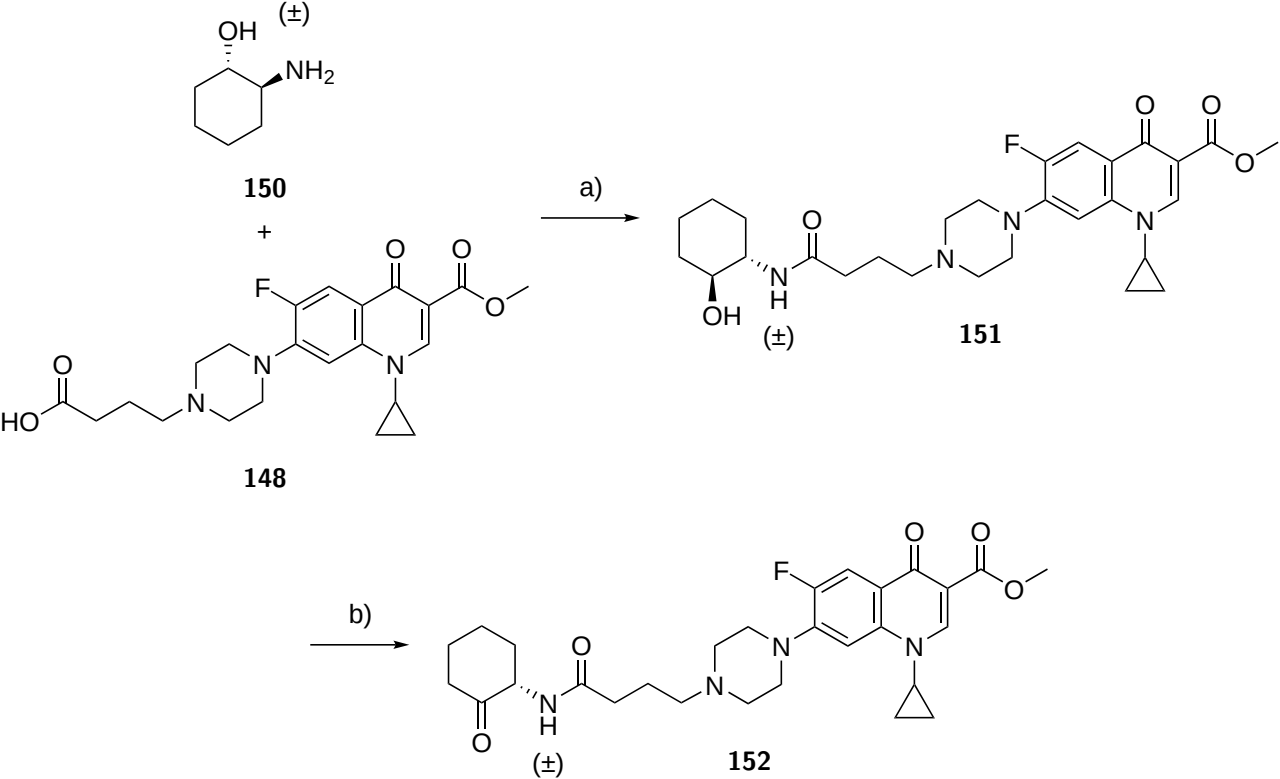
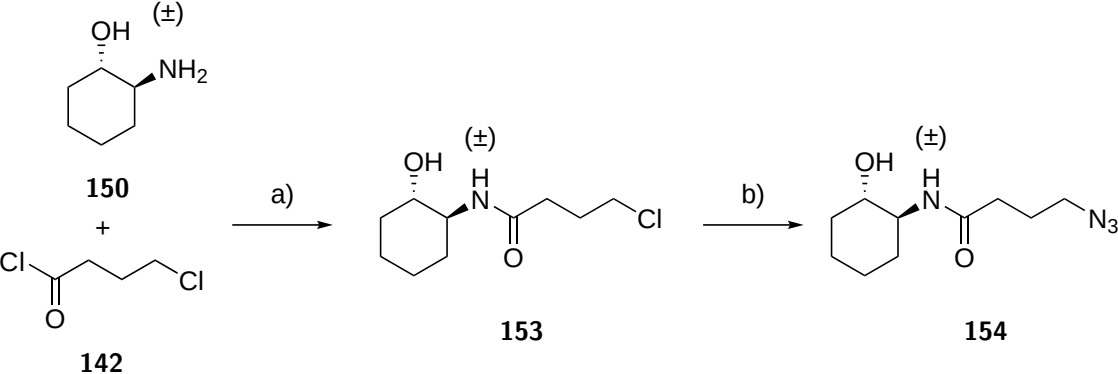
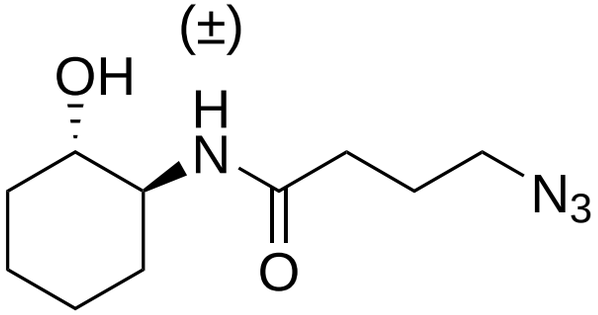


149 **150**

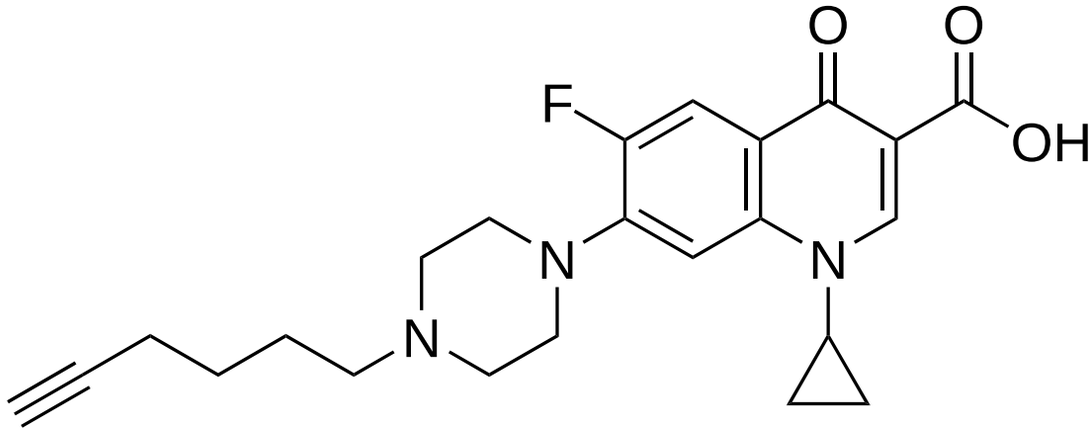

(±)
OH
NH2
150
+
148
a)
151
b)
152


(±)
OH
NH2
150
+
Cl
Cl
O
142
a)
(±)
OH
H
N
O
Cl
153
b)
(±)
OH
H
N
O
N3
154



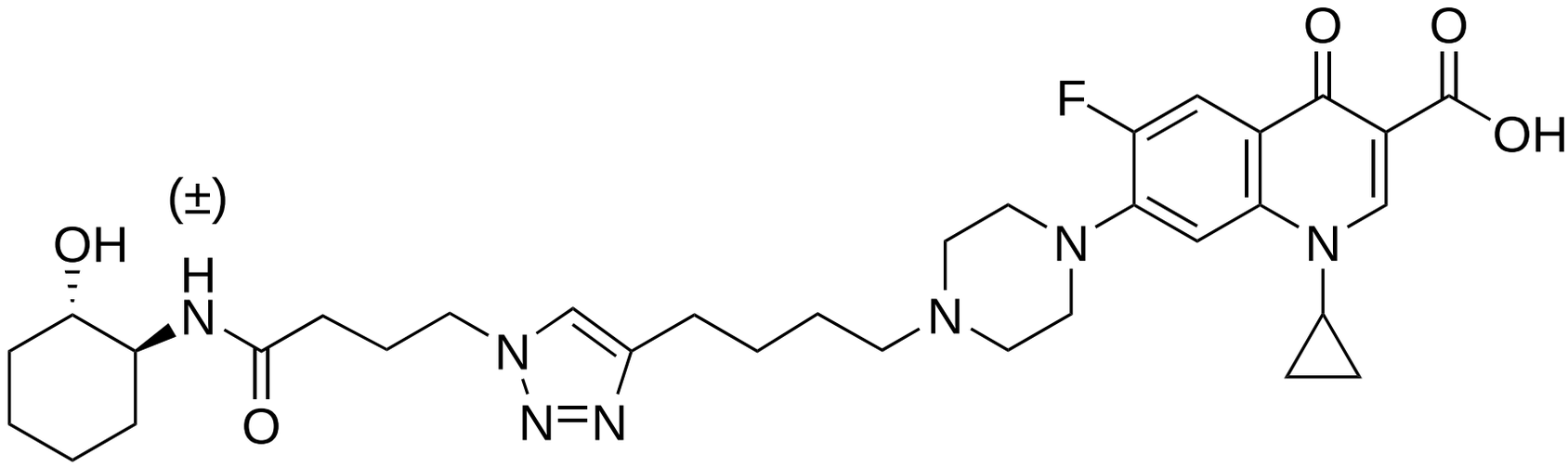
154

+



68

a)



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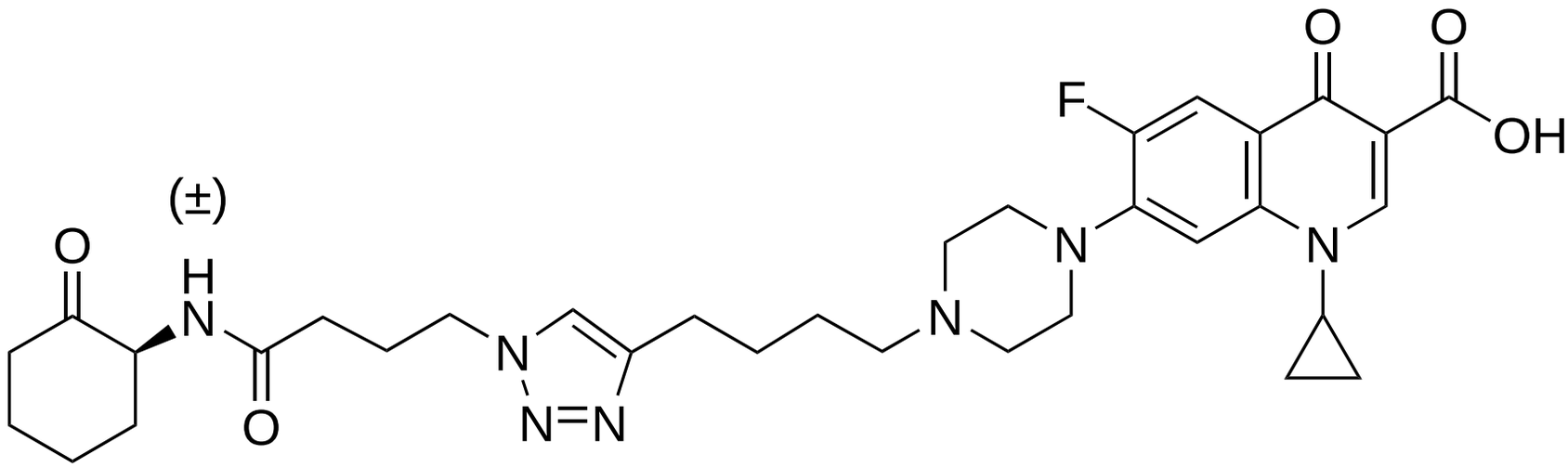
b)



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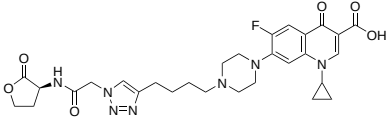

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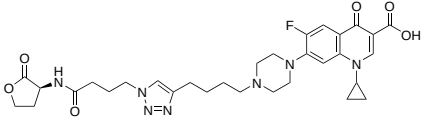

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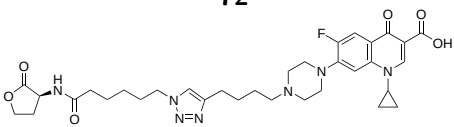

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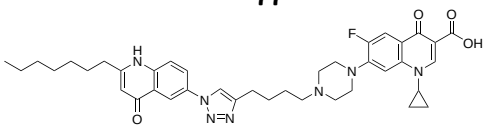

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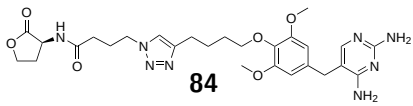

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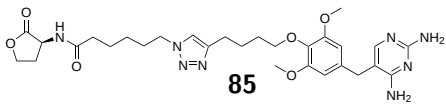

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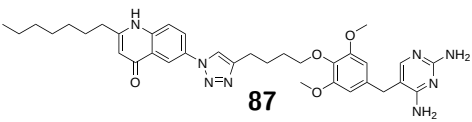

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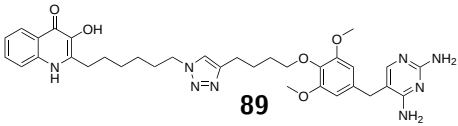

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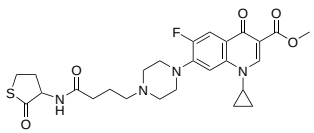

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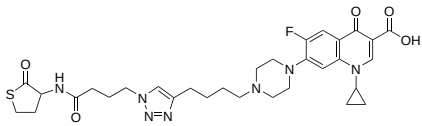

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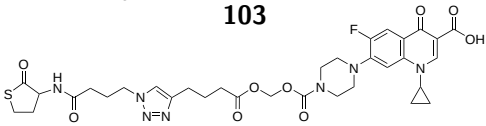

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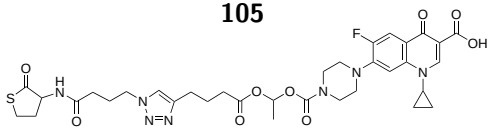

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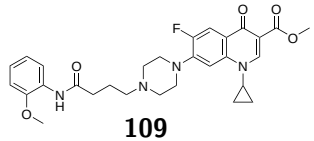

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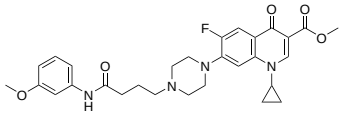

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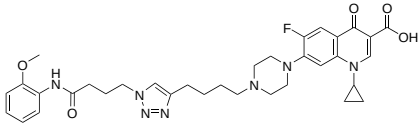

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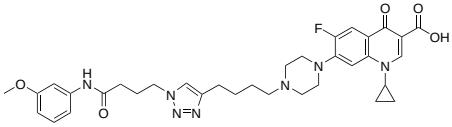

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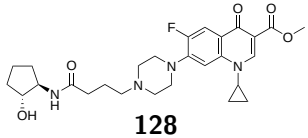

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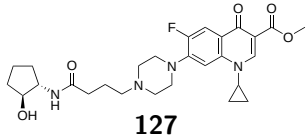

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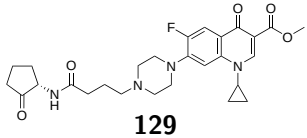
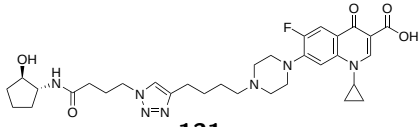
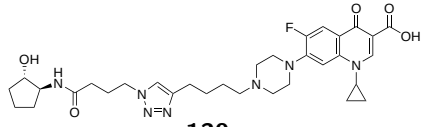


129



131



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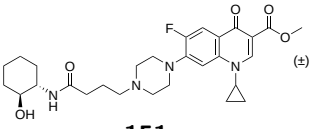
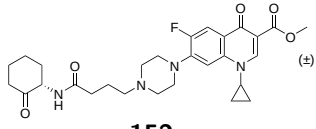
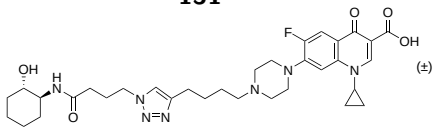


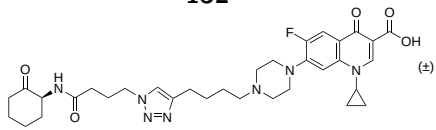
151



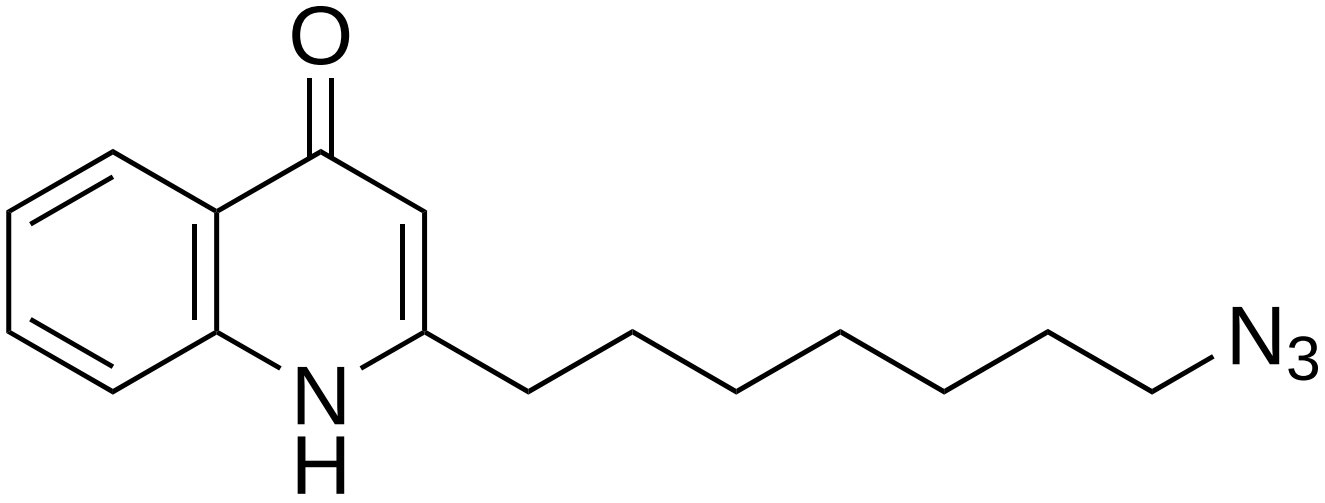
152



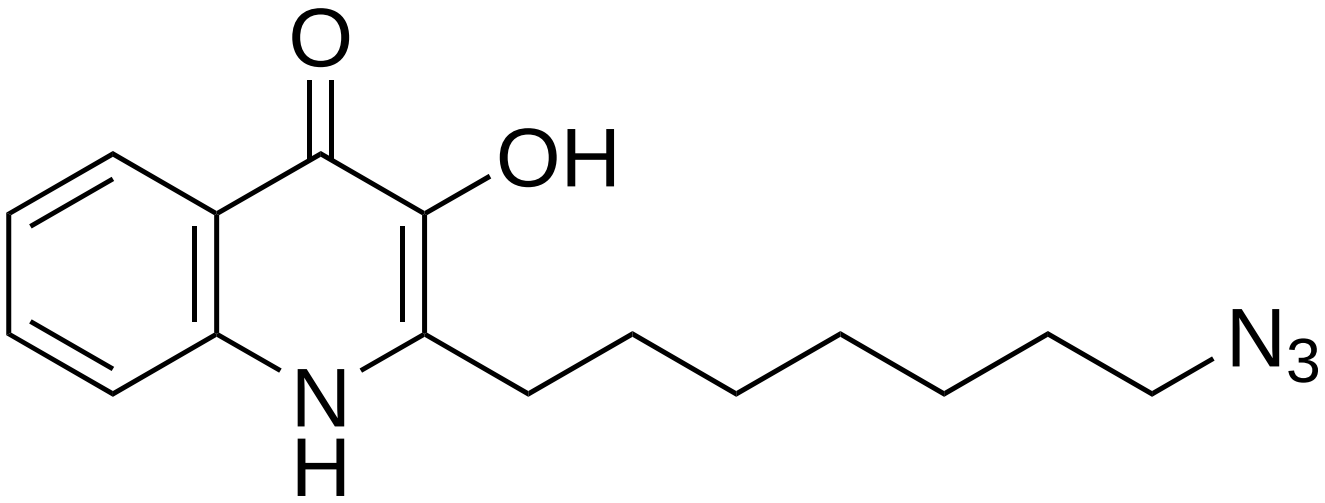
155



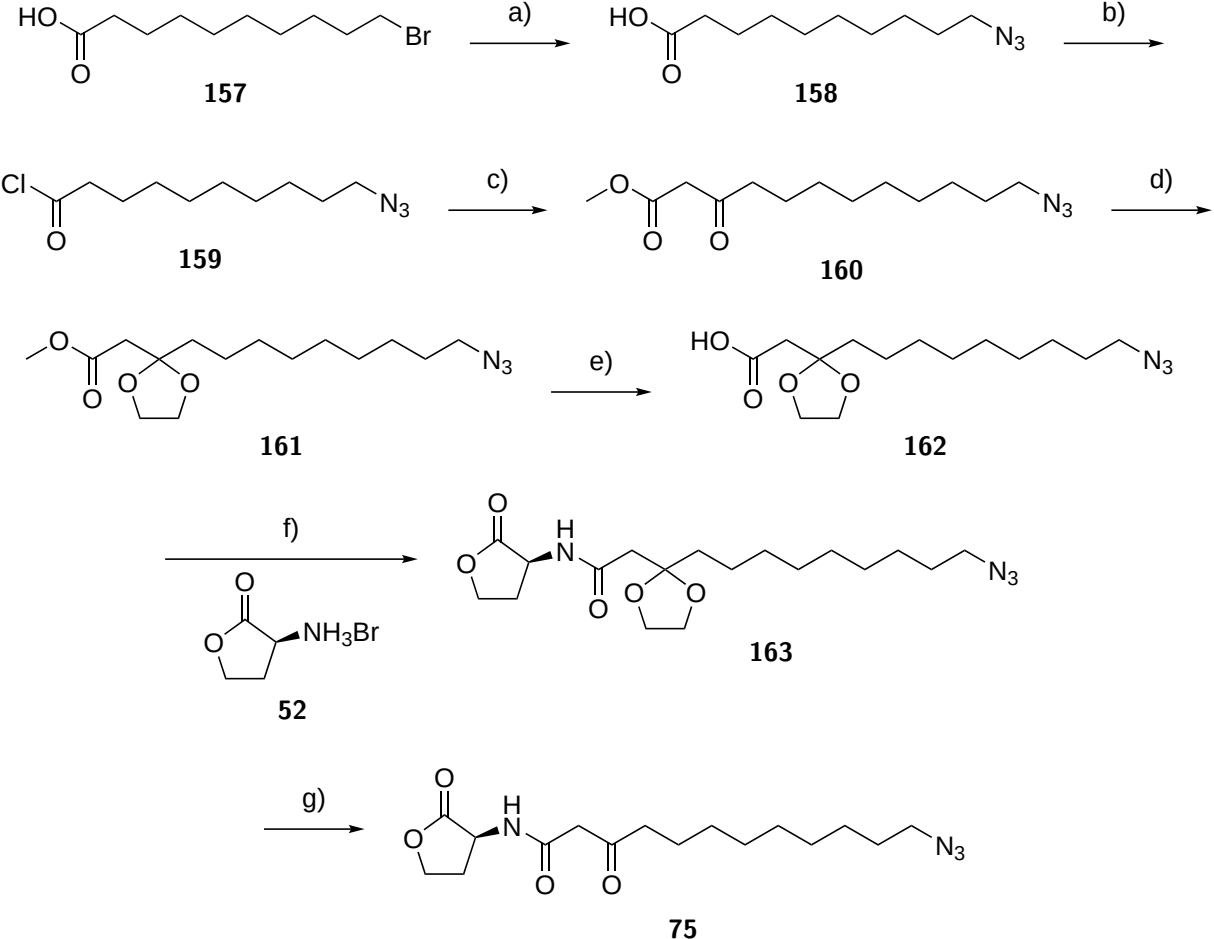
156

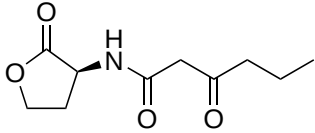


29



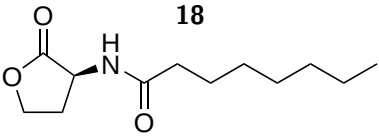
30


HO
O
Br
157
a)
HO
O
N3
158
b)
Cl
O
N3
159
c)
O
O
O
N3
160
d)
O
O
O
O
N3
161
e)
HO
O
O
O
N3
162
f)
O
O
NH3Br
52
O
O
H
N
O
O
O
N3
163
g)
O
O
H
N
O
O
O
N3
75



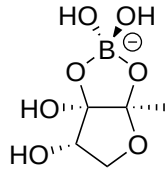
3-oxo-C_6-HSL

18



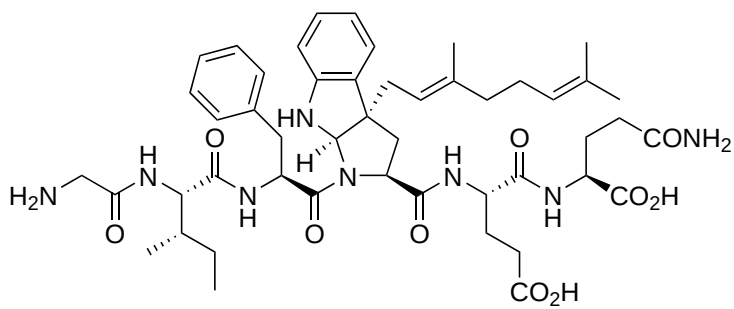
C_8-HSL

164



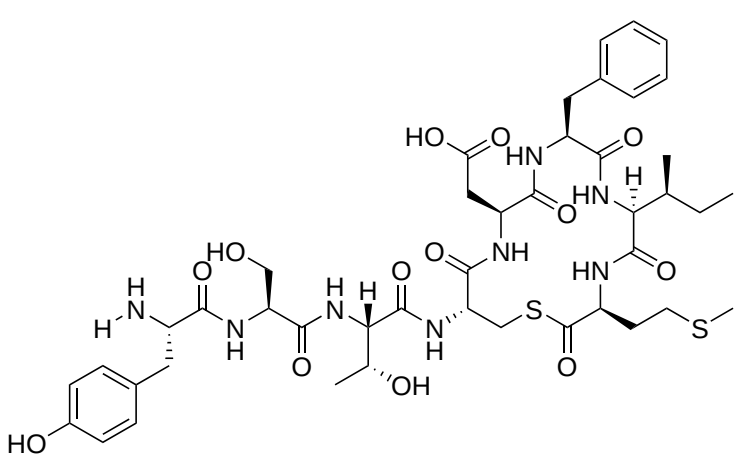
AI-2

23



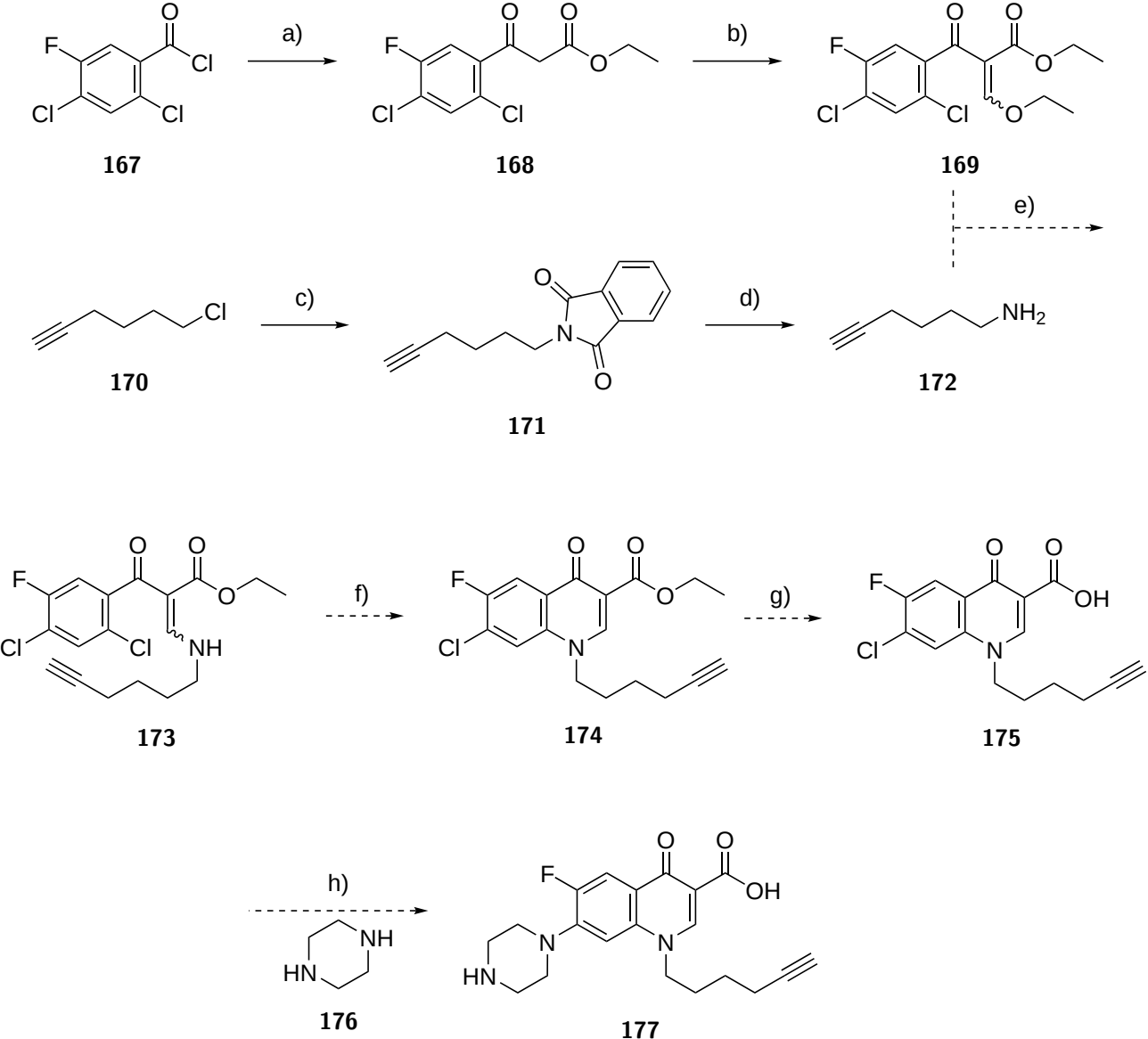
ComX

165



AIP

166

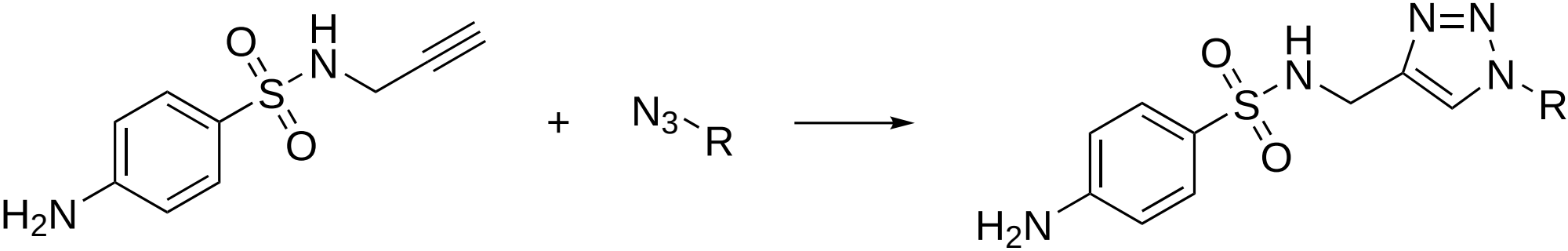


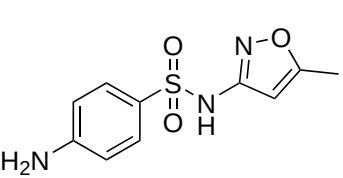
167 **168** **169** **170** **171** **172** **173** **174** **175** **176** **177**

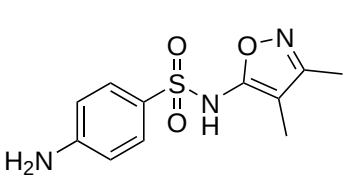
Prontosil
178

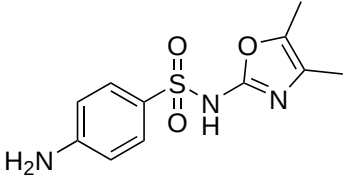
Sulfanilamide
179

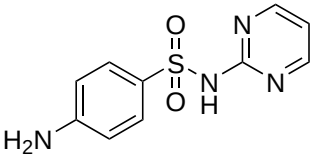
1,2,4-triaminobenzene
180

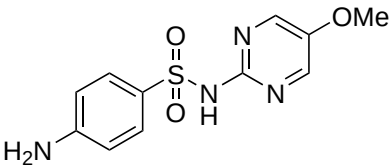

O
H
N
S
O
H2N
+
N3
R
N=N
N
R
O
H
N
S
O
H2N

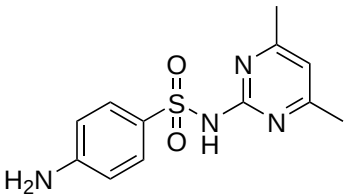

Sulfamethoxazole

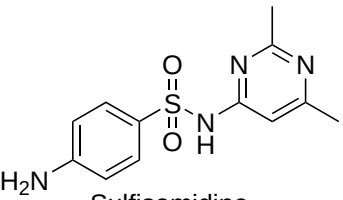

Sulfafurazole

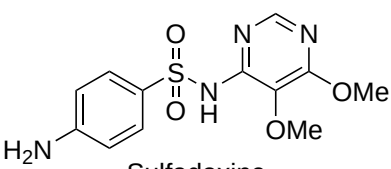

Sulfamoxole

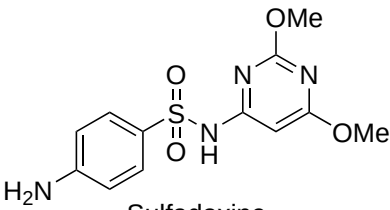

Sulfadiazine

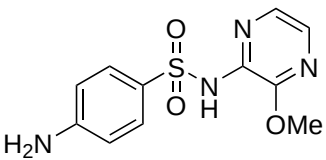

Sulfametoxydiazine

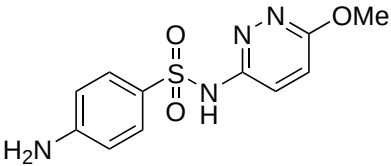

Sulfadimidine

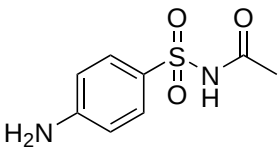

Sulfisomidine

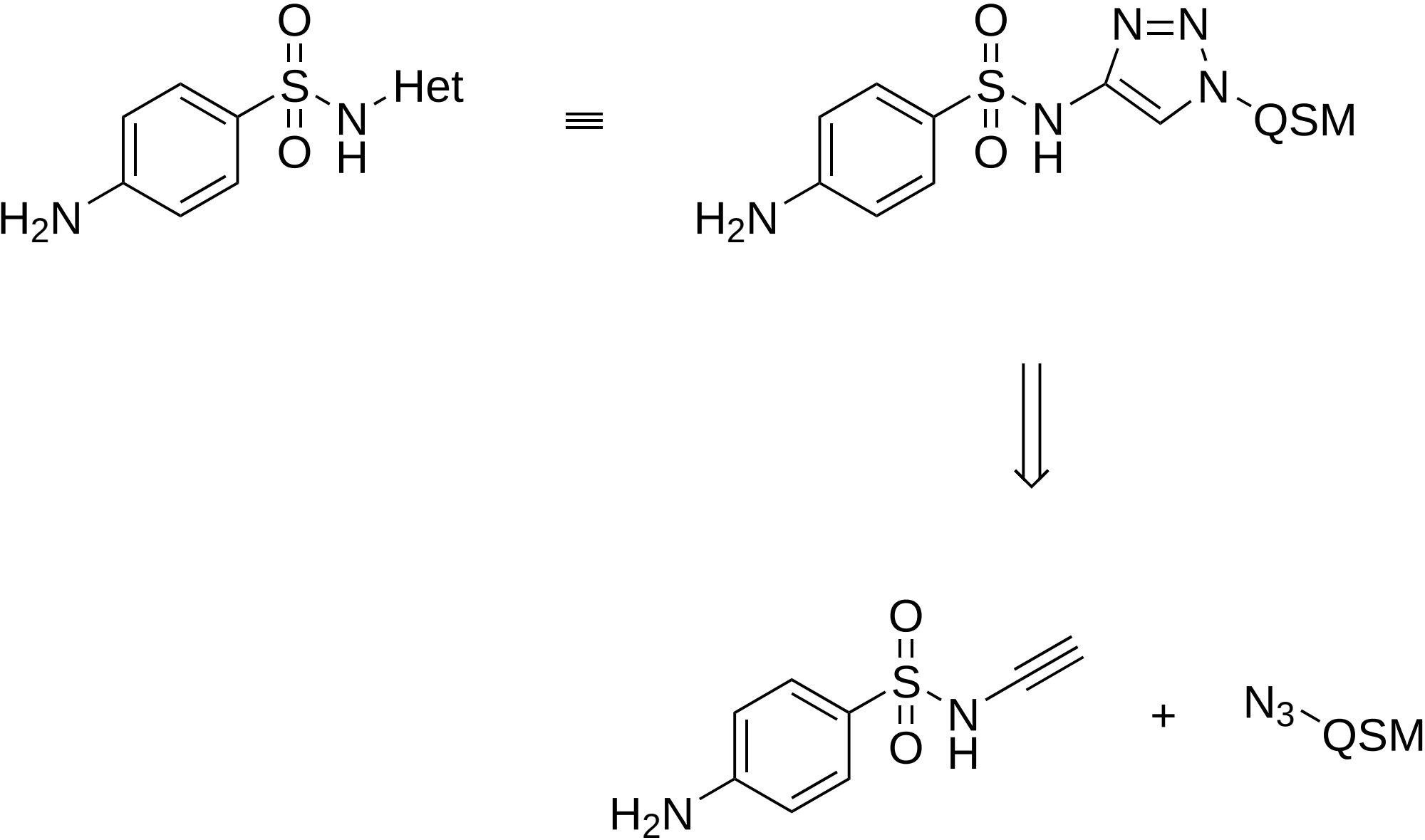

Sulfadoxine


Sulfadoxine


Sulfalene

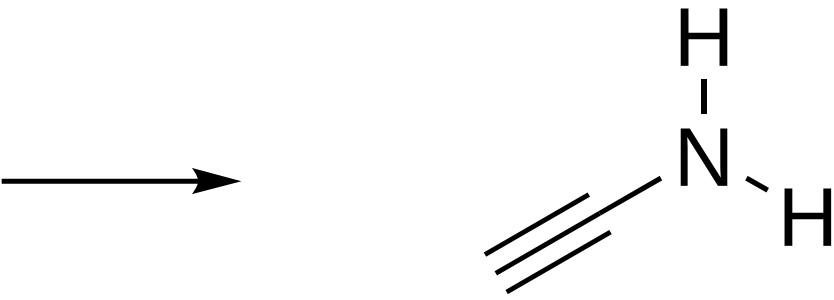

Sulfadoxine

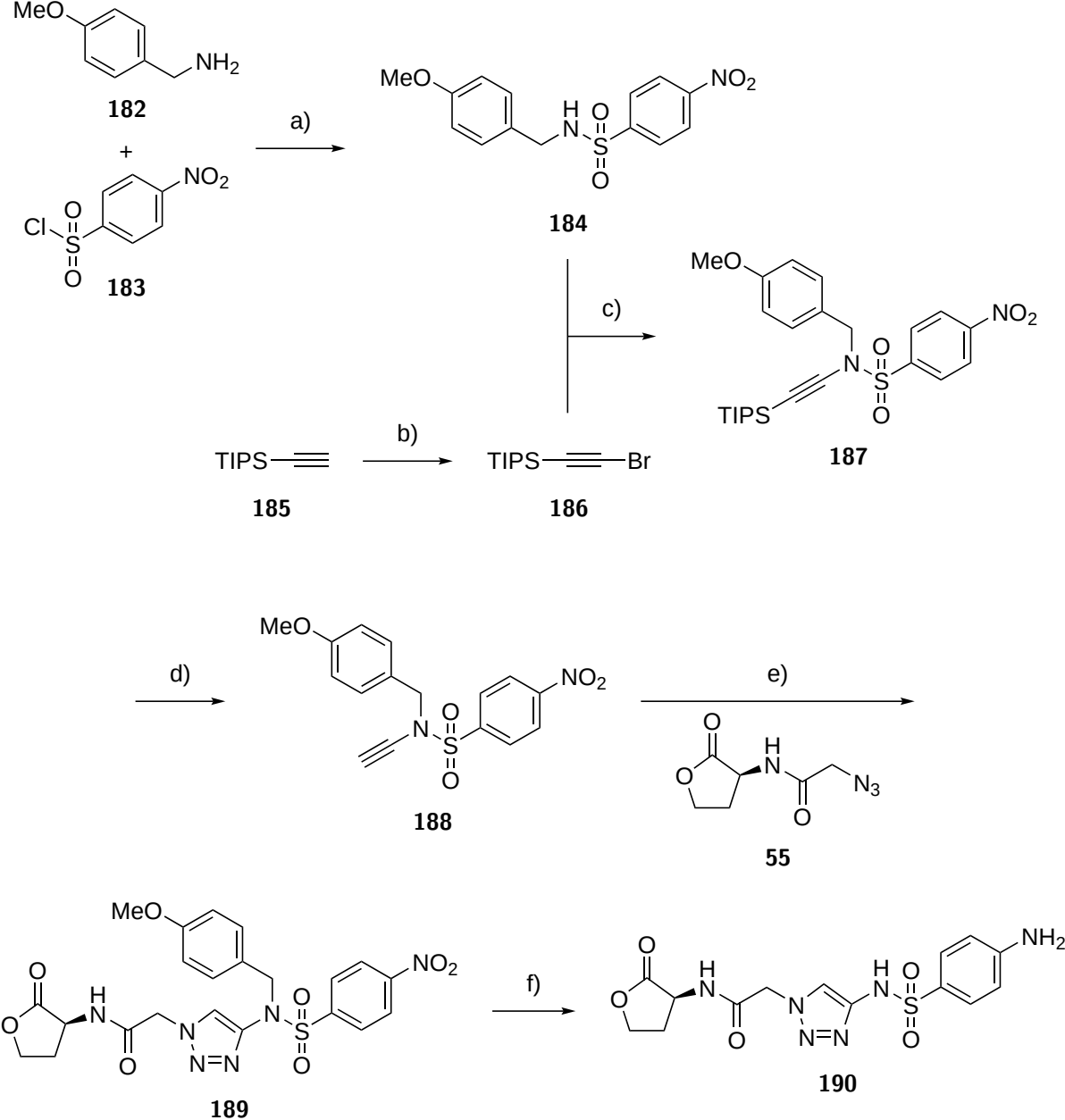

Sulfacetamide

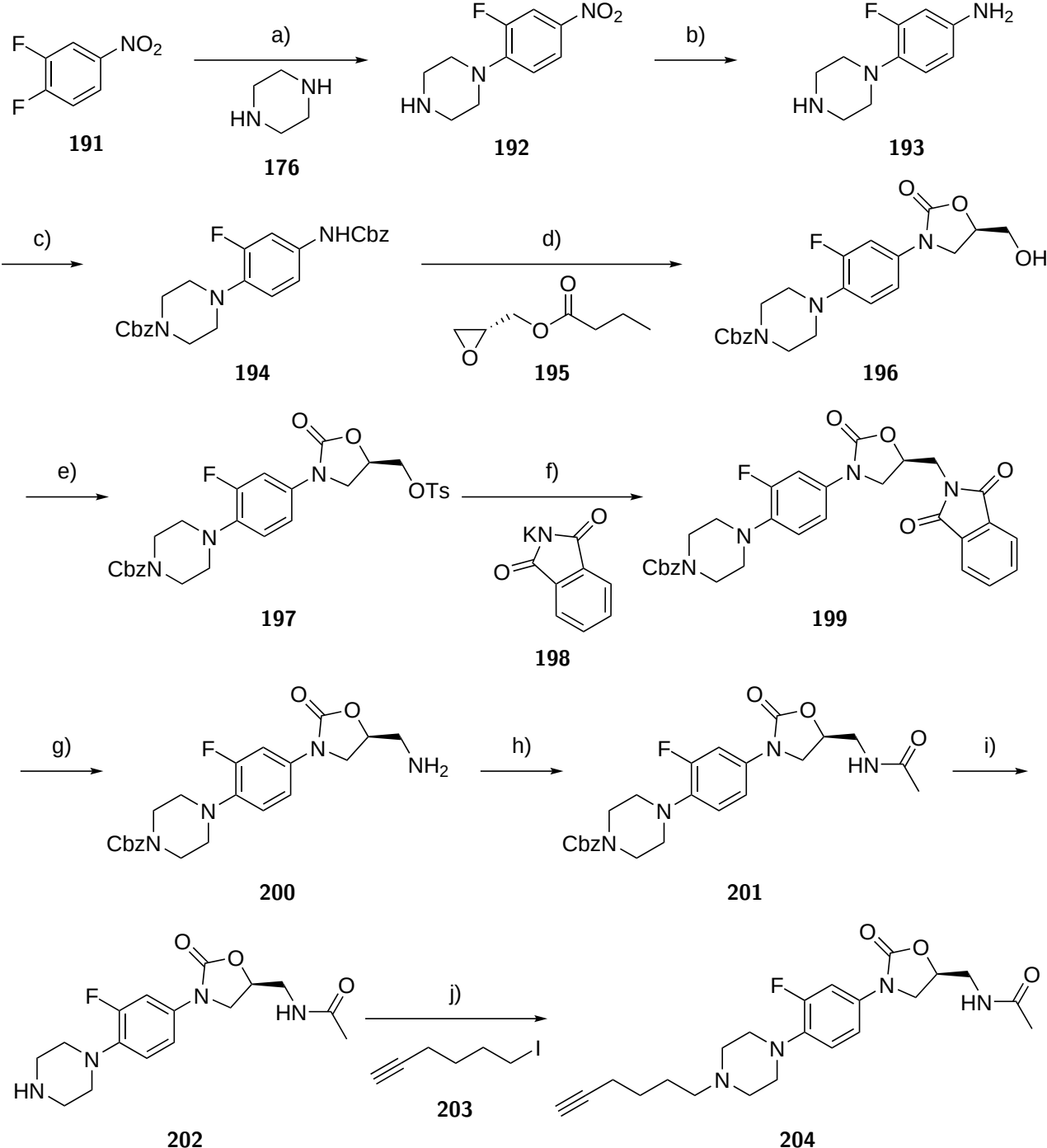


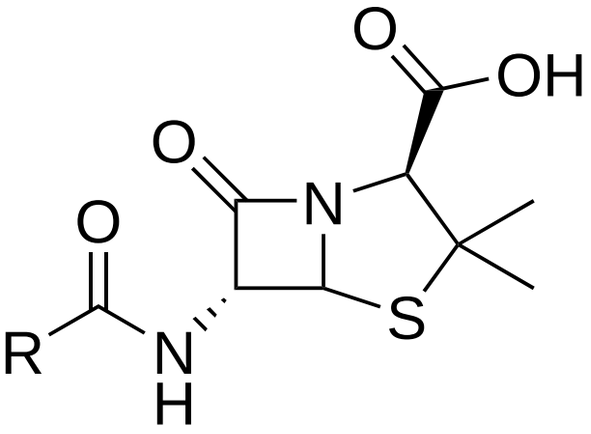
181

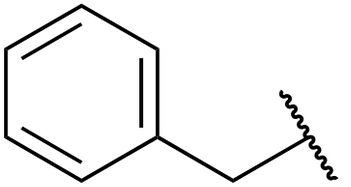
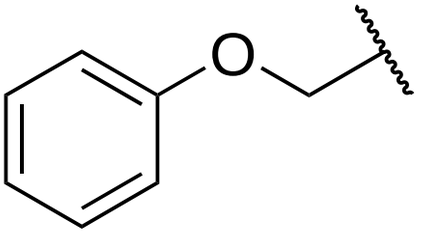
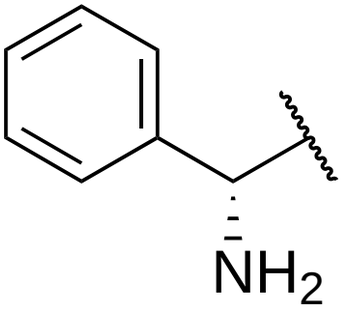
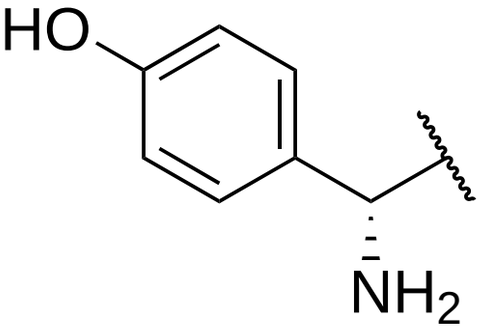
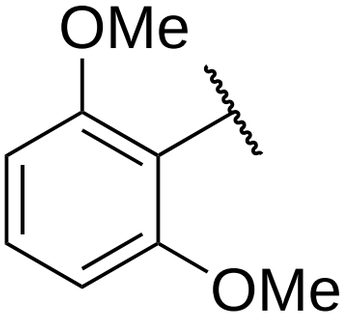

H
N
A
O

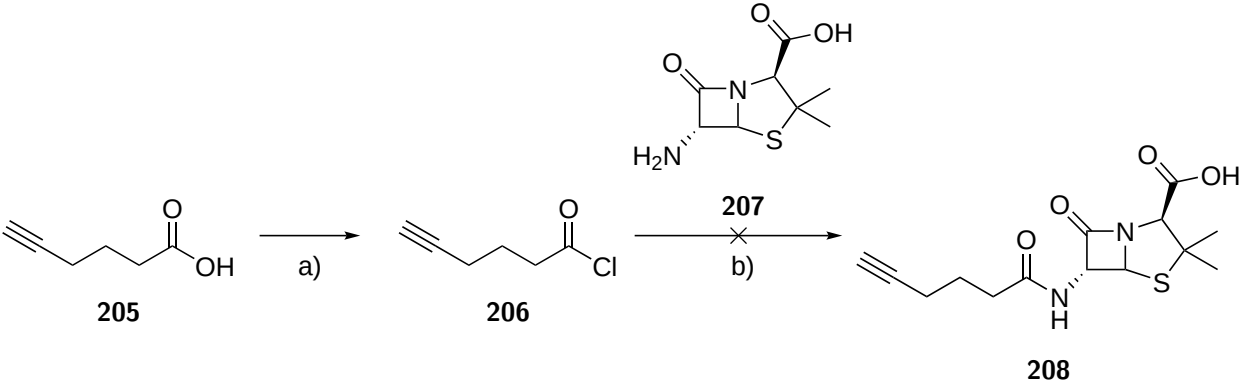

H
N
H

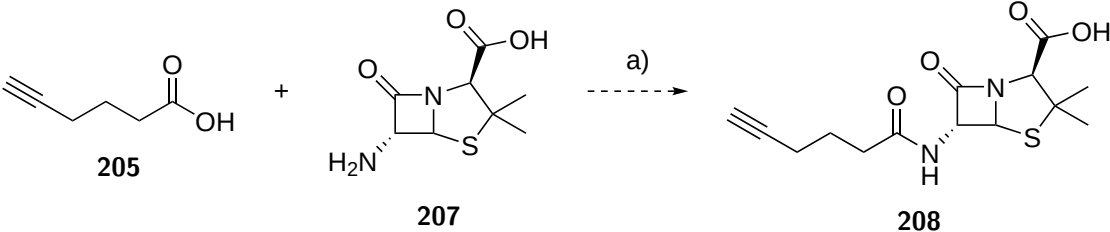

MeO
NH2
182
+
NO2
Cl
O
S
O
183
a)
MeO
H
N
O
S
O
NO2
184
c)
MeO
NO2
N
O
S
O
TIPS
187
TIPS
b)
TIPS
Br
185
186
d)
MeO
NO2
N
O
S
O
188
e)
O
O
H
N
N3
O
55
MeO
NO2
O
O
H
N
N
N=N
N
O
S
O
189
f)
O
O
H
N
N
O
N
N=N
H
N
O
S
O
NH2
190

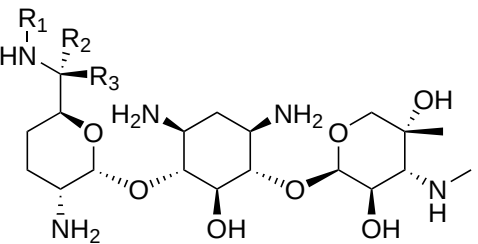

F
NO2
F
191
a)
NH
HN
176
F
NO2
N
HN
192
b)
F
NH2
N
HN
193
c)
F
NHCbz
N
CbzN
194
d)
O
O
O
195
O
O
N
F
OH
N
CbzN
196
e)
O
O
N
F
OTs
N
CbzN
197
f)
KN
O
O
198
O
O
N
F
N
O
N
O
CbzN
199
g)
O
O
N
F
NH2
N
CbzN
200
h)
O
O
N
F
HN
O
N
CbzN
201
i)
O
O
N
F
HN
O
N
HN
202
j)
I
203
O
O
N
F
HN
O
N
N
204



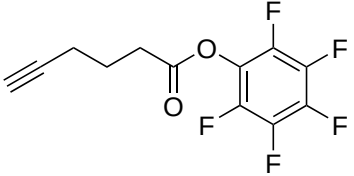
Name	R
Penicillin G	
Penicillin V	
Ampicillin	
Amoxicillin	
Methicillin	


O
OH
205
a)
O
Cl
206
O
OH
O
N
S
H2N
207
b)
O
OH
O
N
S
O
N
H
208


O
OH
205
+
O
OH
O
N
S
H2N
207
a)
O
OH
O
N
S
O
N
H
208

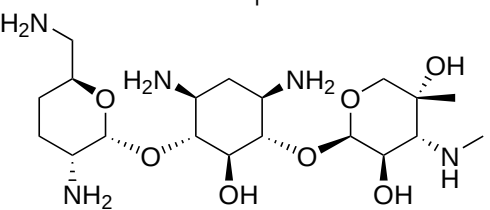


Gentamicin	R_1	R_2	R_3
C1	Me	Me	H
C1a	H	H	H
C2	H	Me	H
C2a	H	H	Me
C2b	Me	H	H



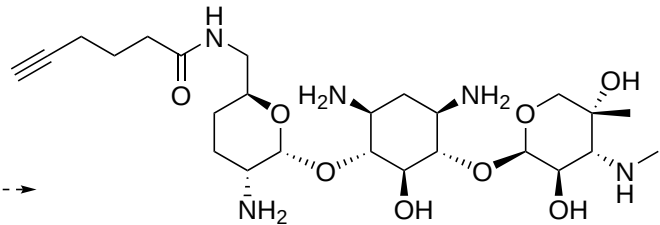
209

+



210

a)



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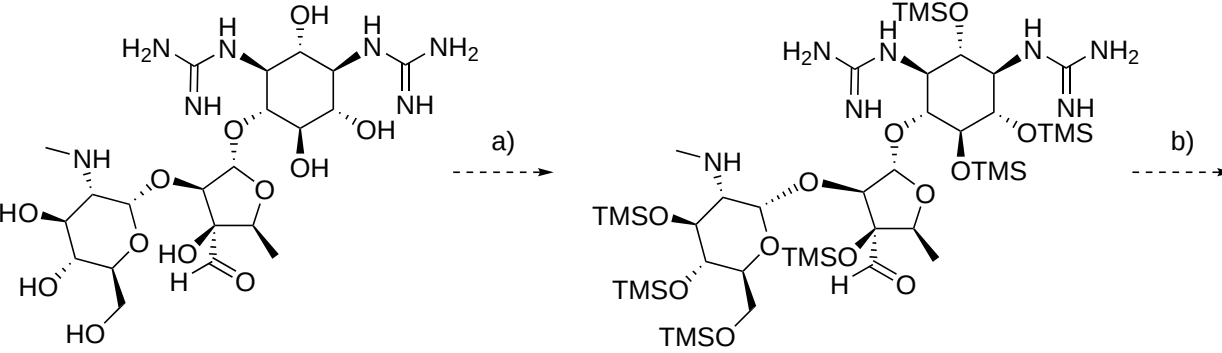

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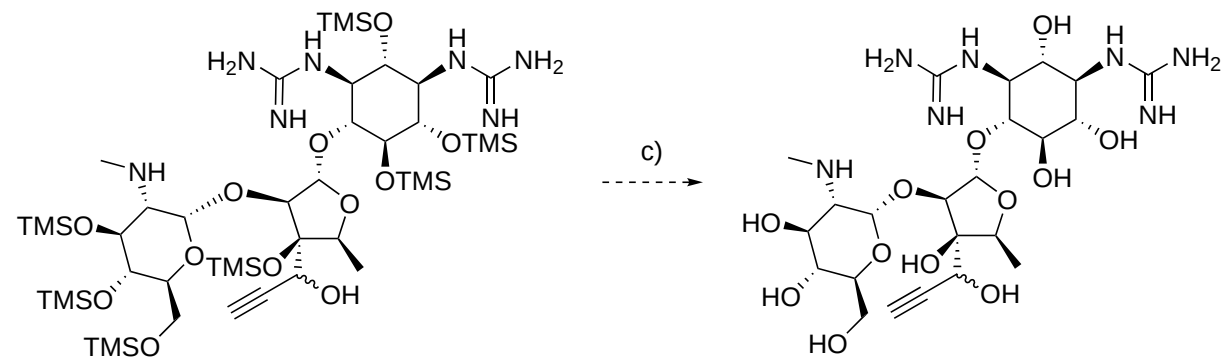

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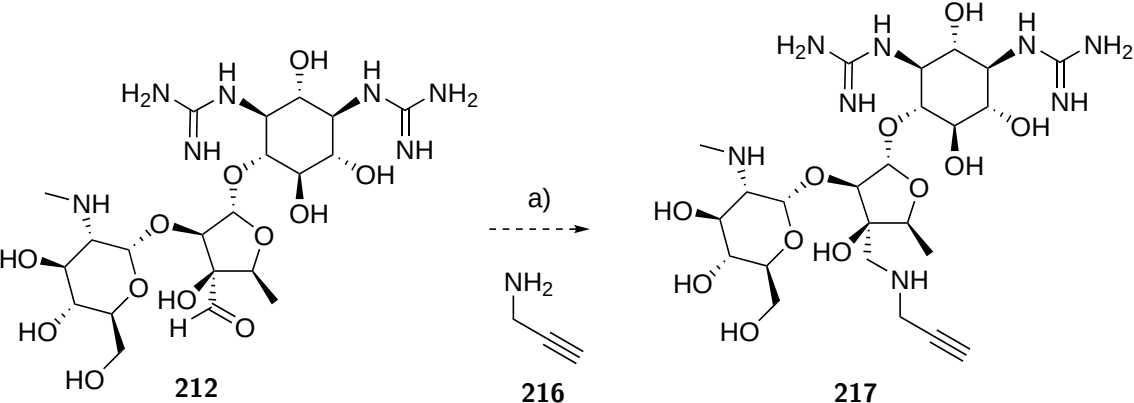
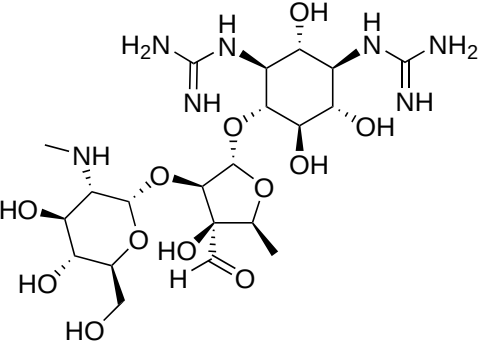


212 **216** **217**



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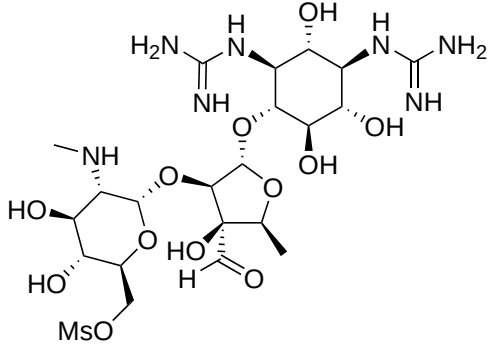

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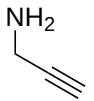

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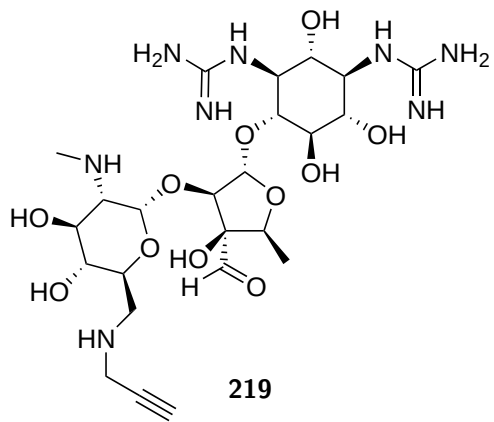

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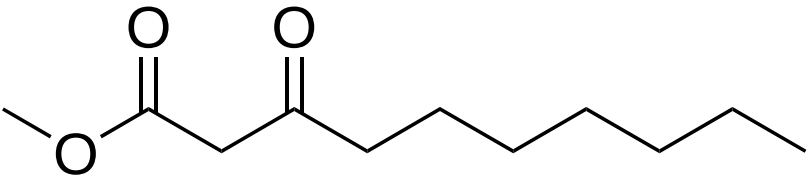

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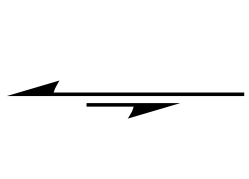

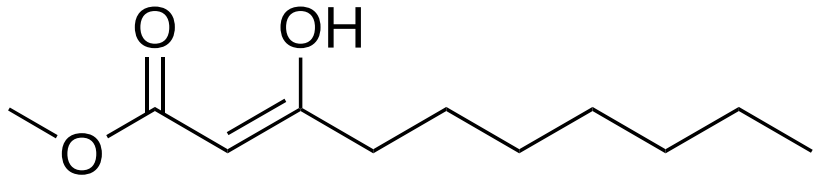

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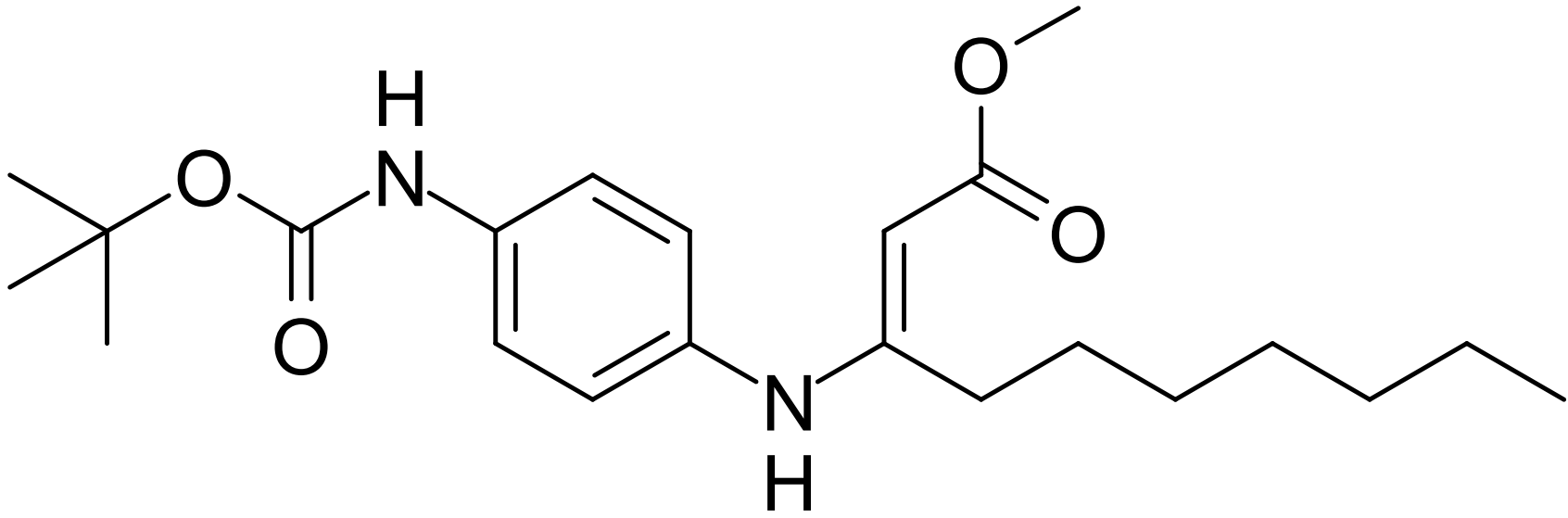
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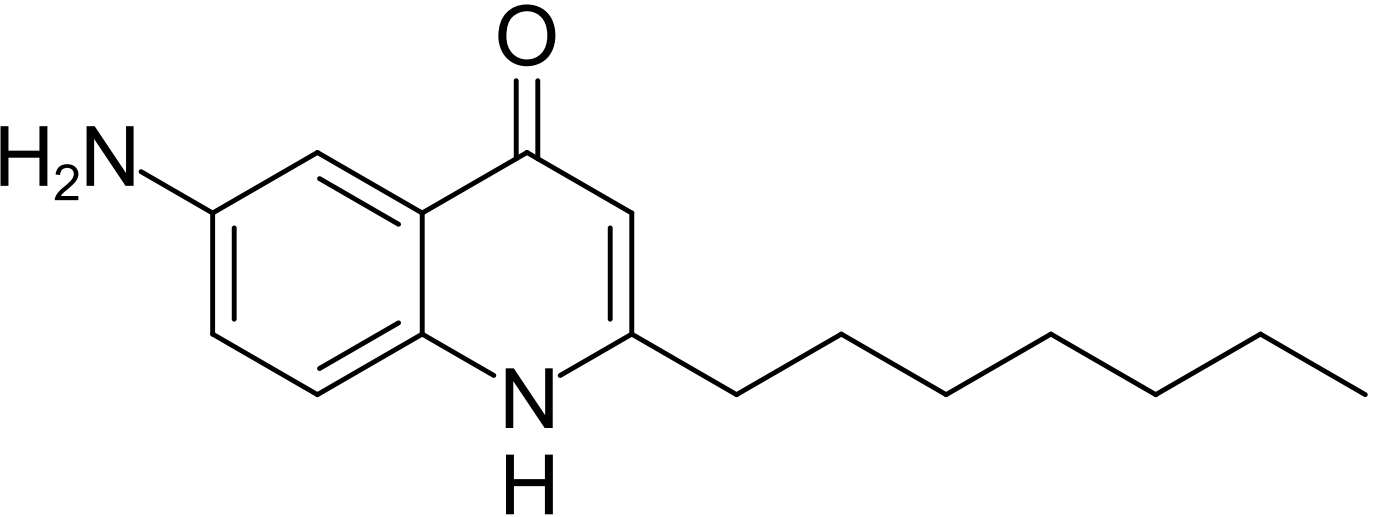
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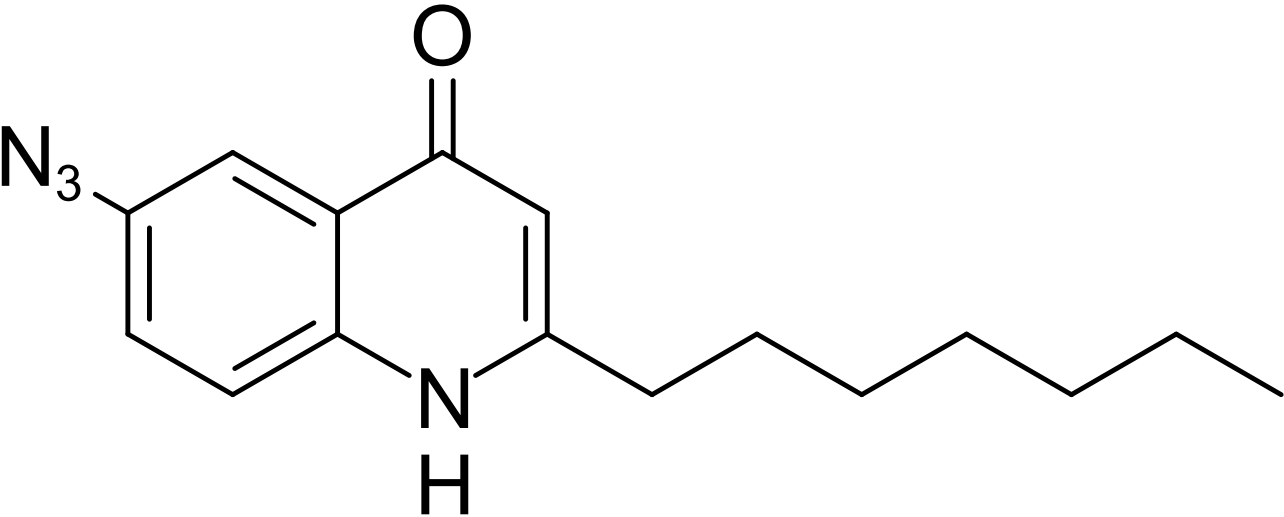
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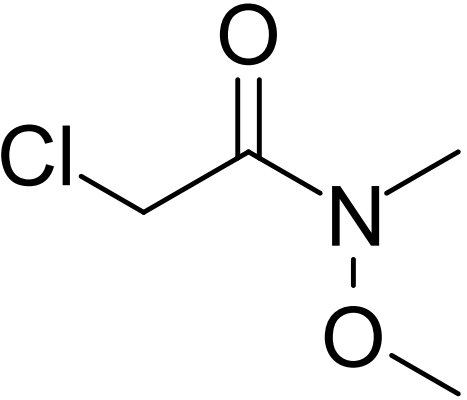
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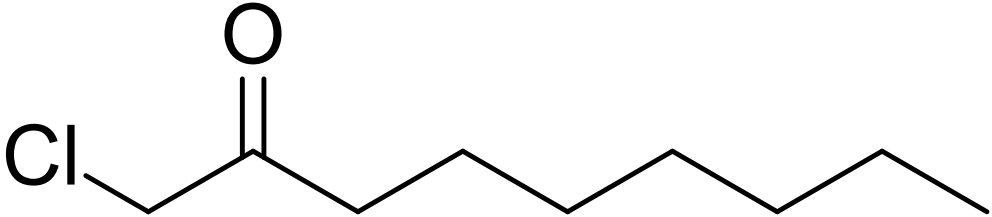
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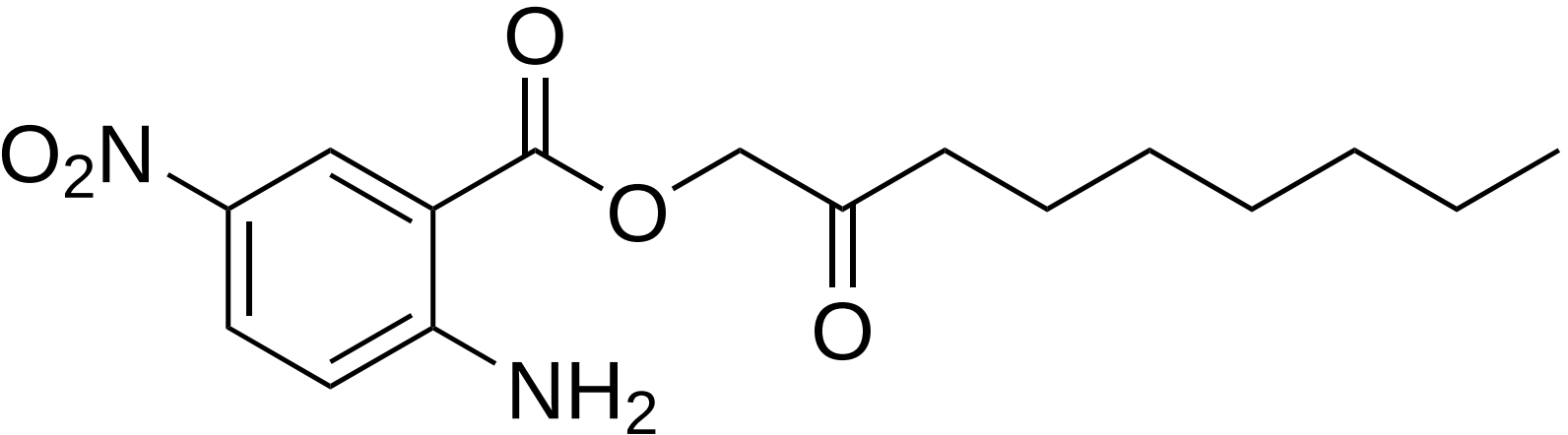
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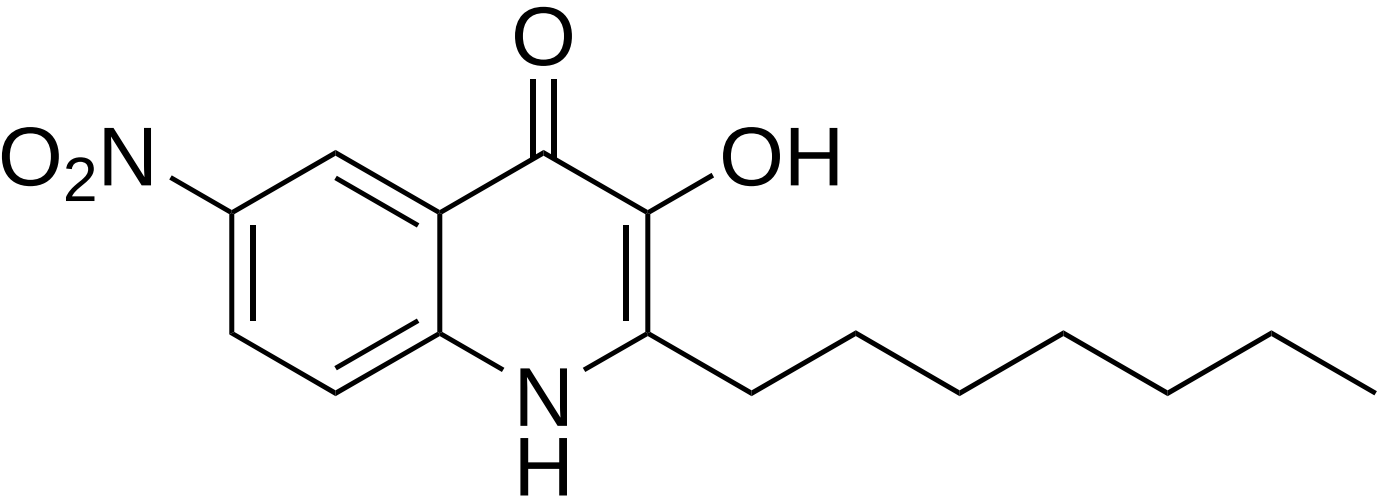
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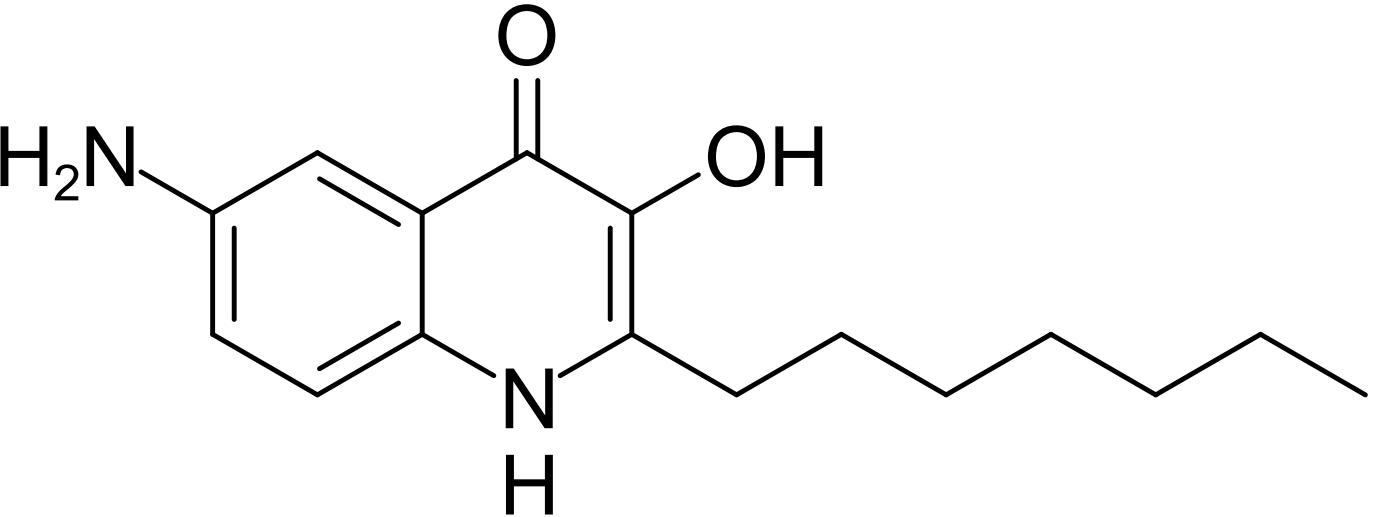
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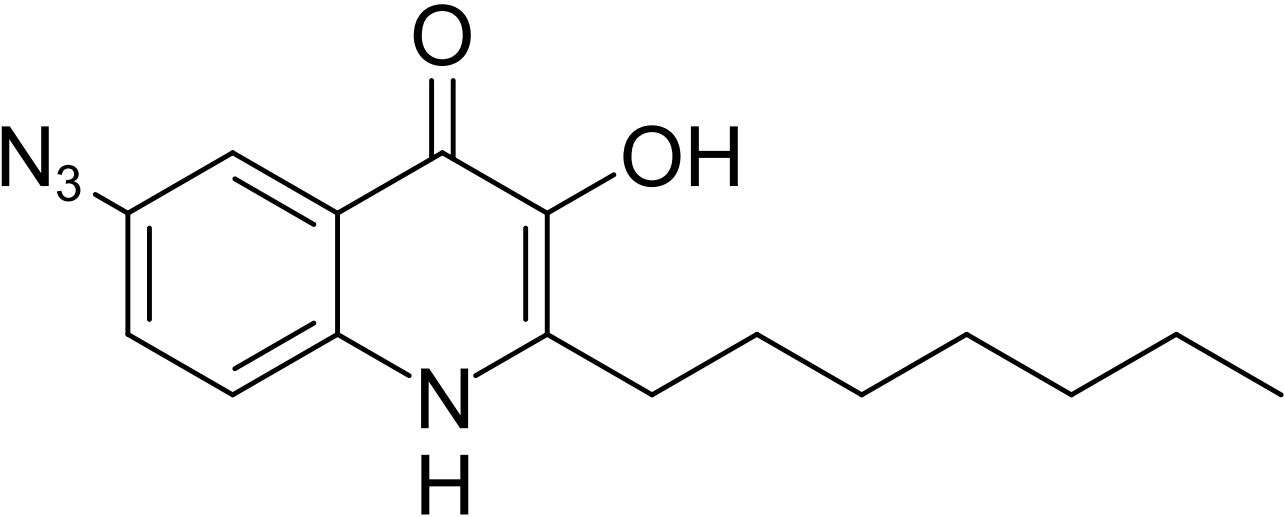
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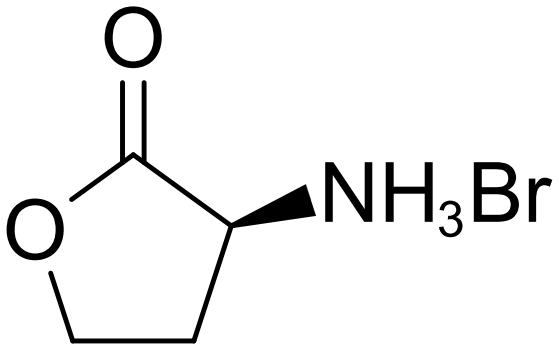
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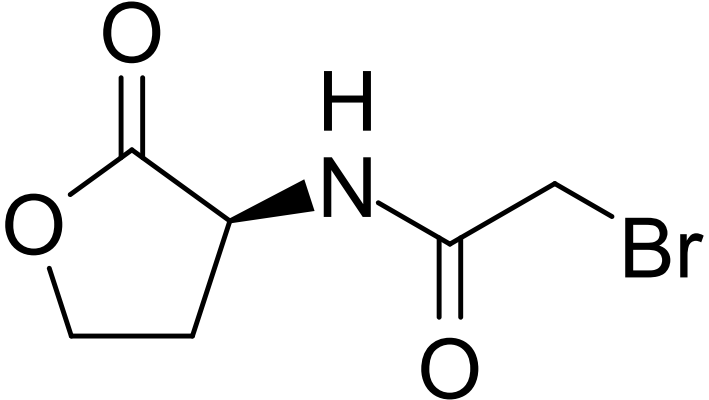
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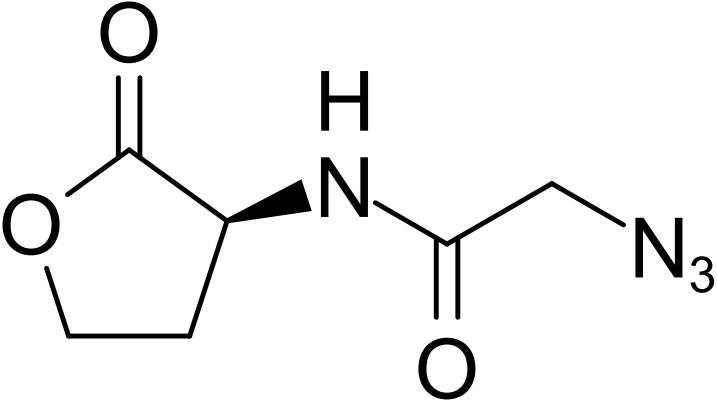
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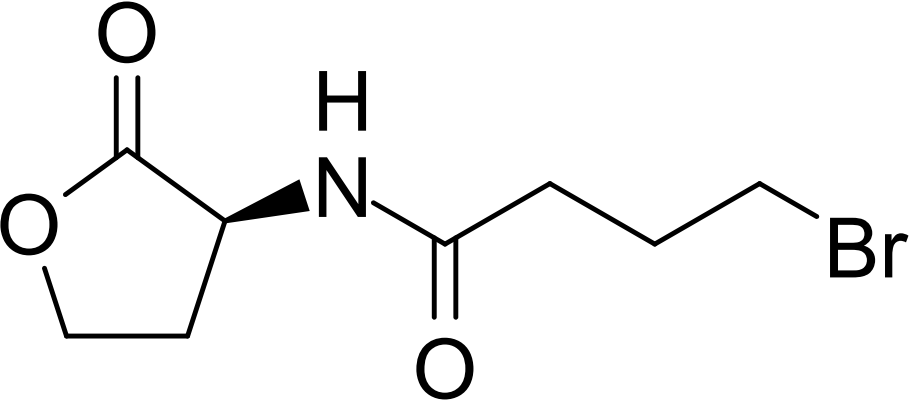
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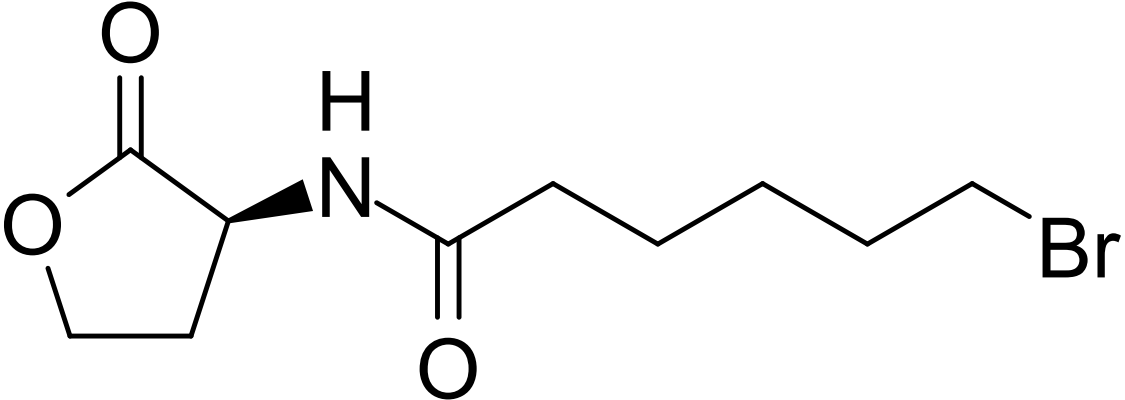
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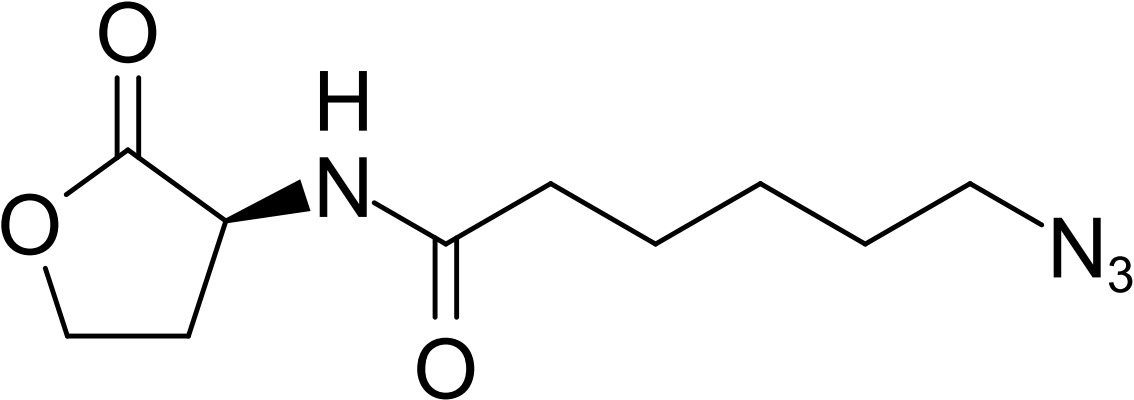
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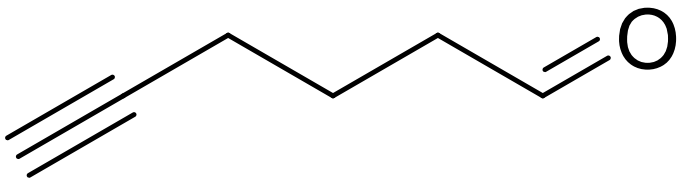
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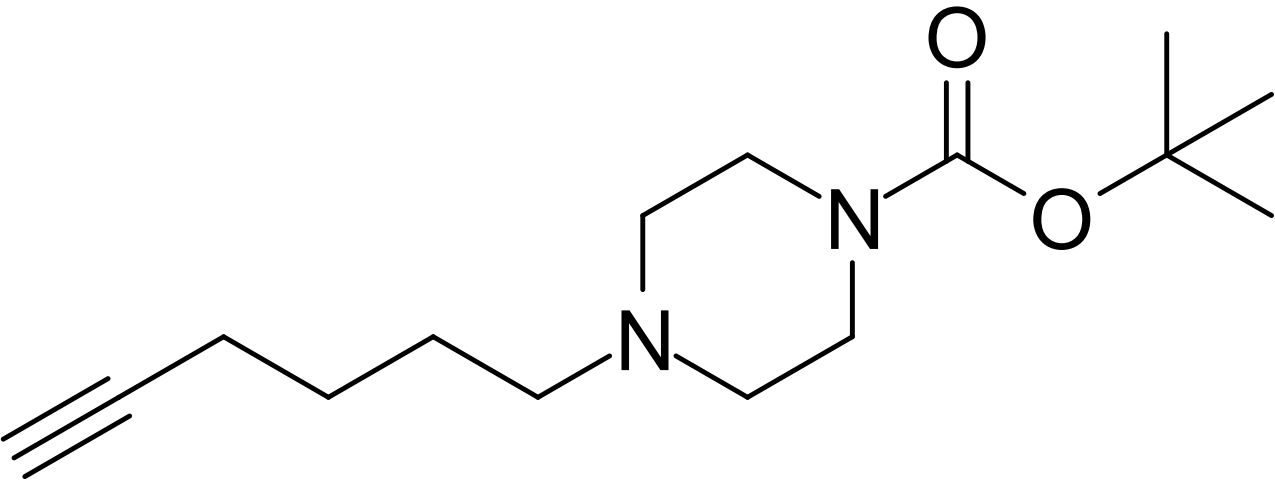
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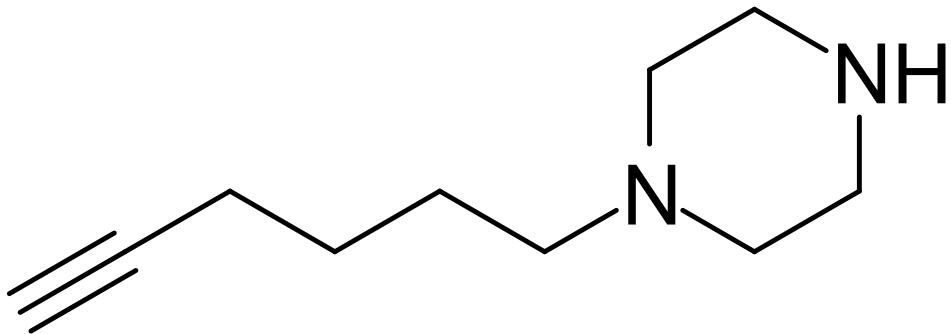
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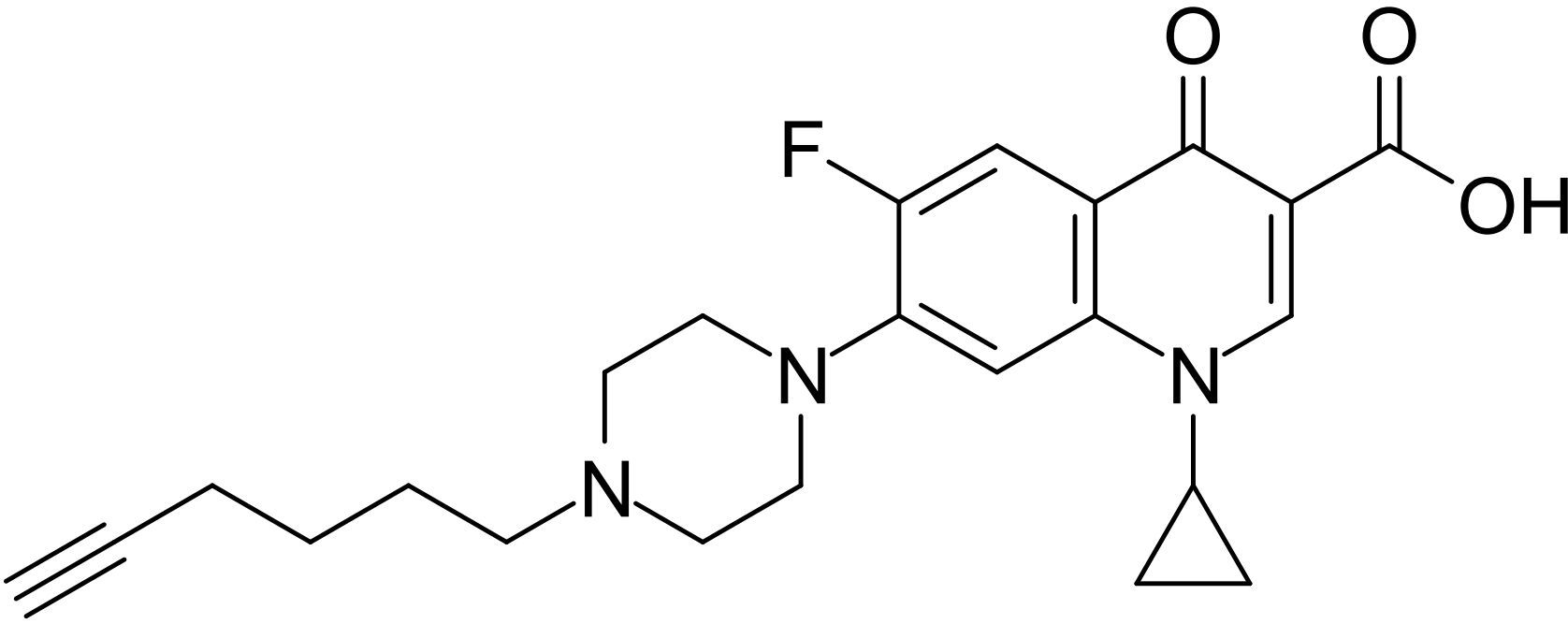
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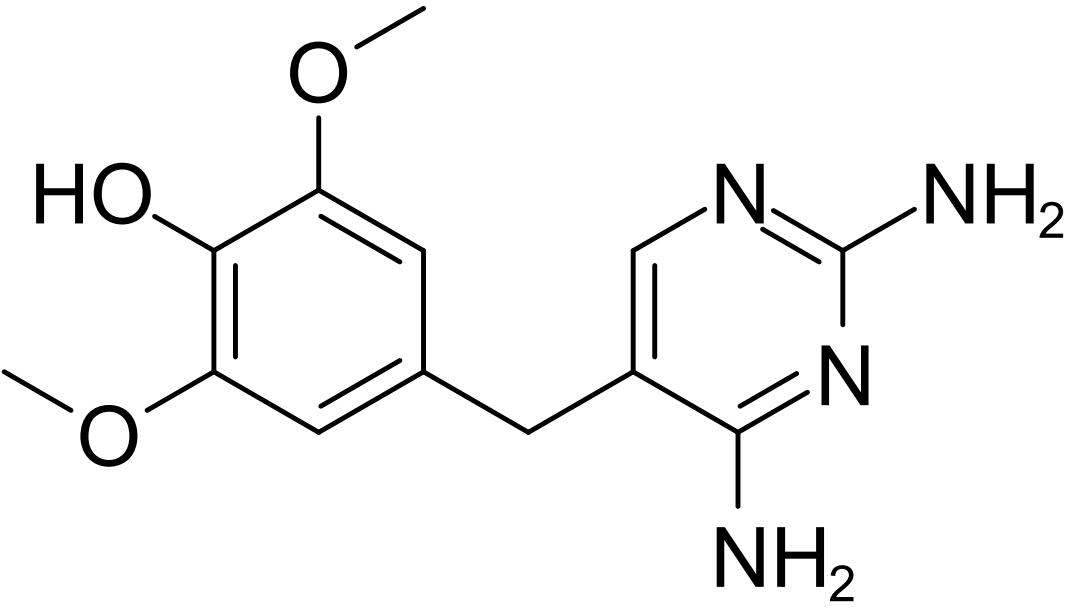
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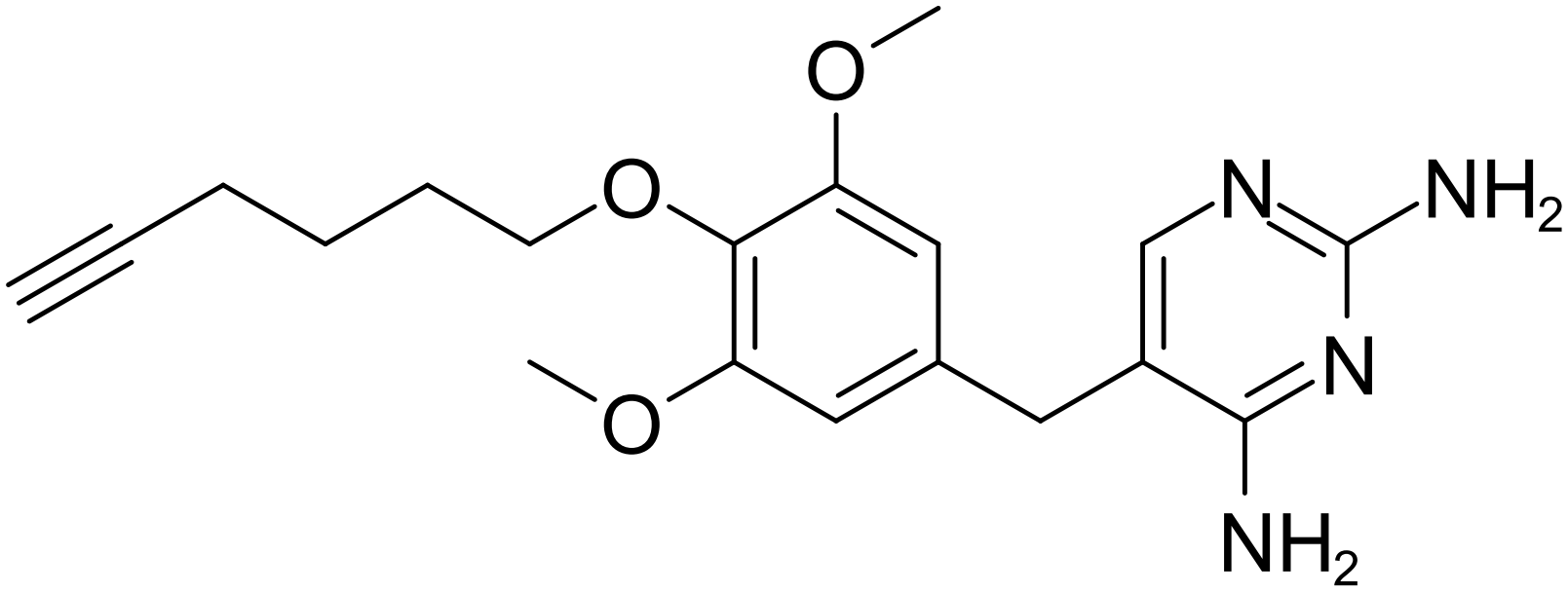
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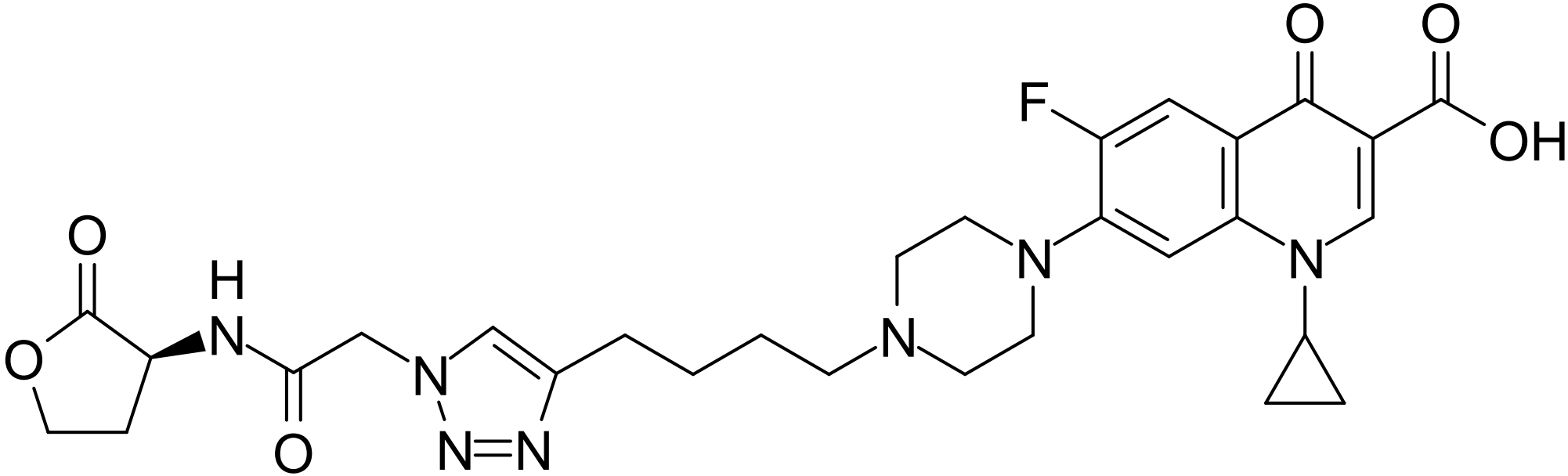
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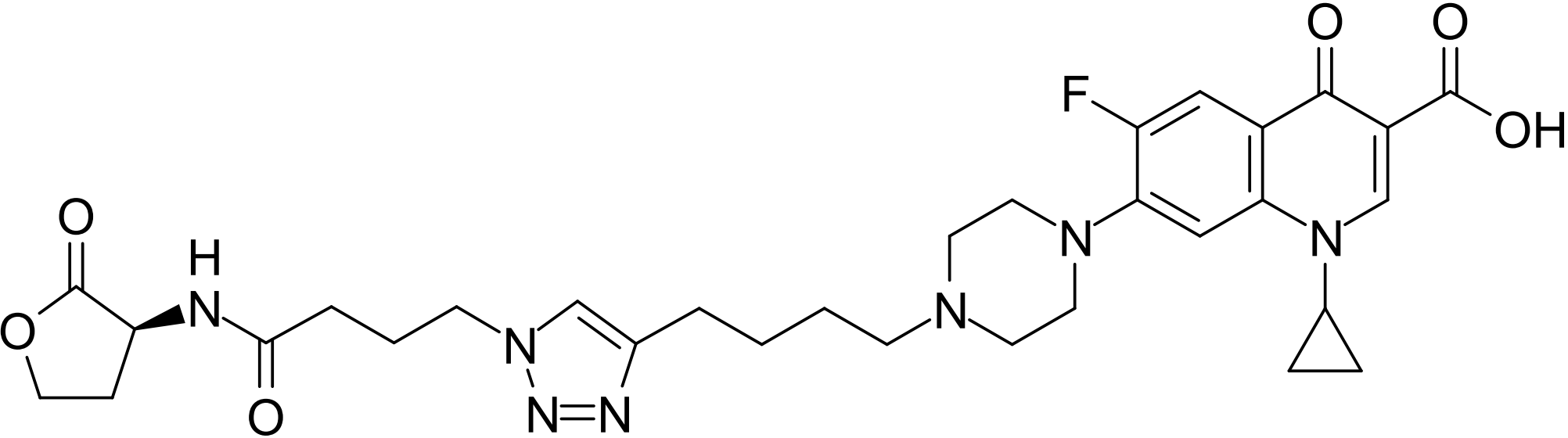
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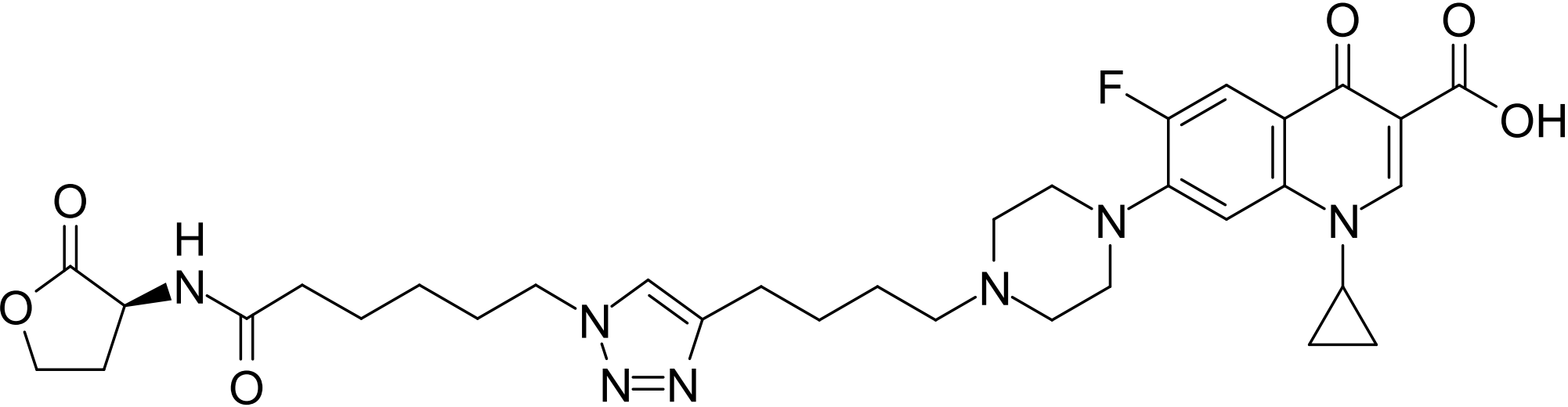

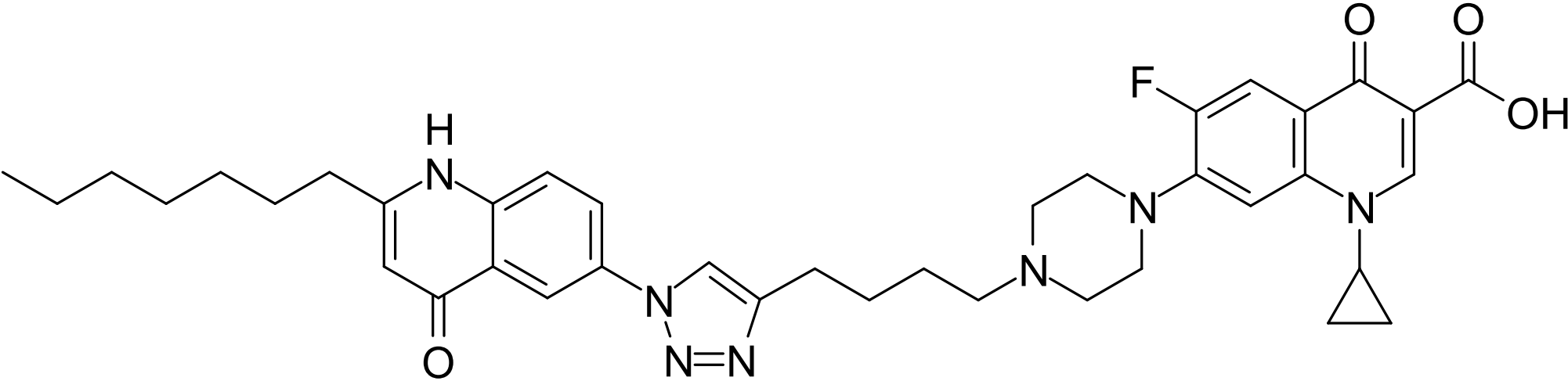
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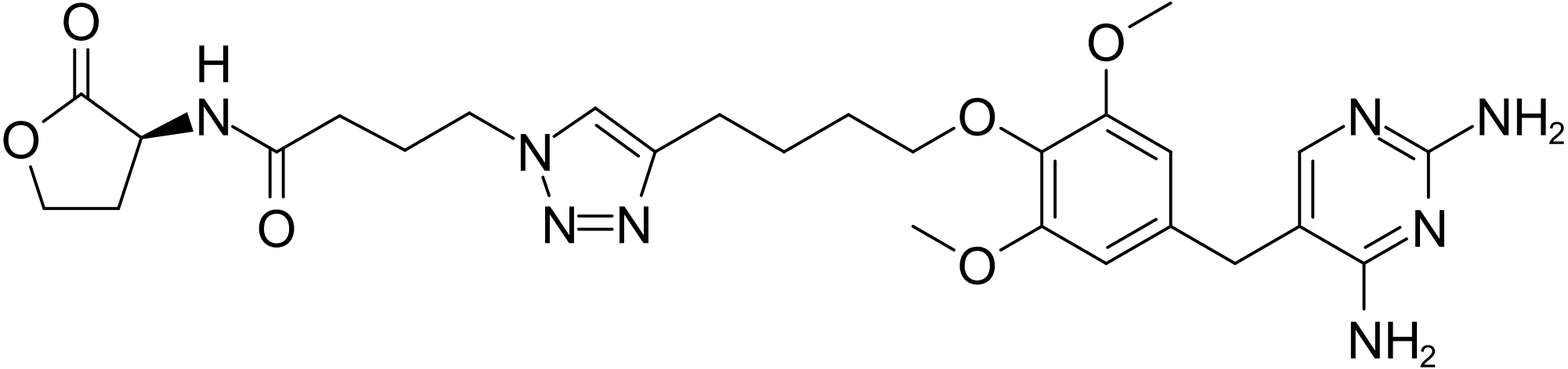

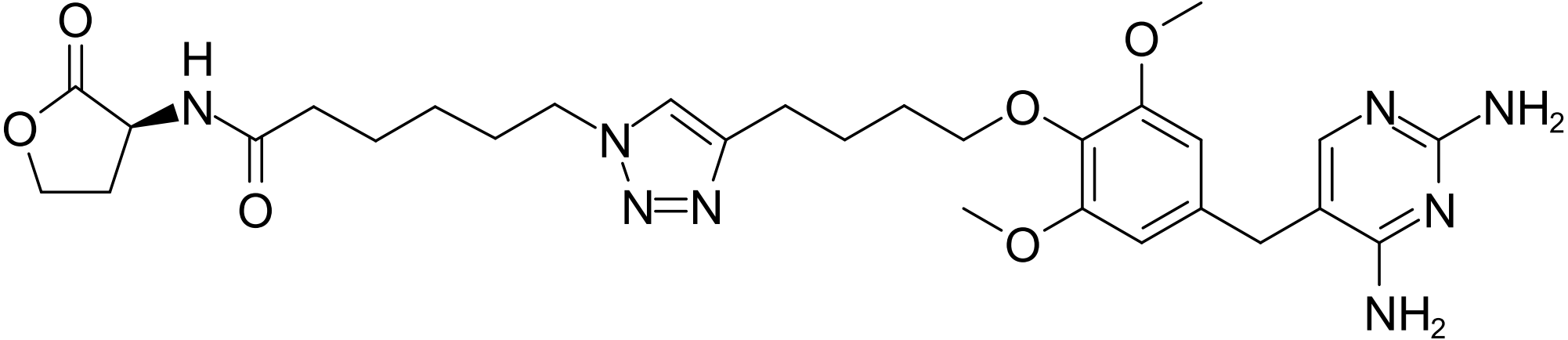

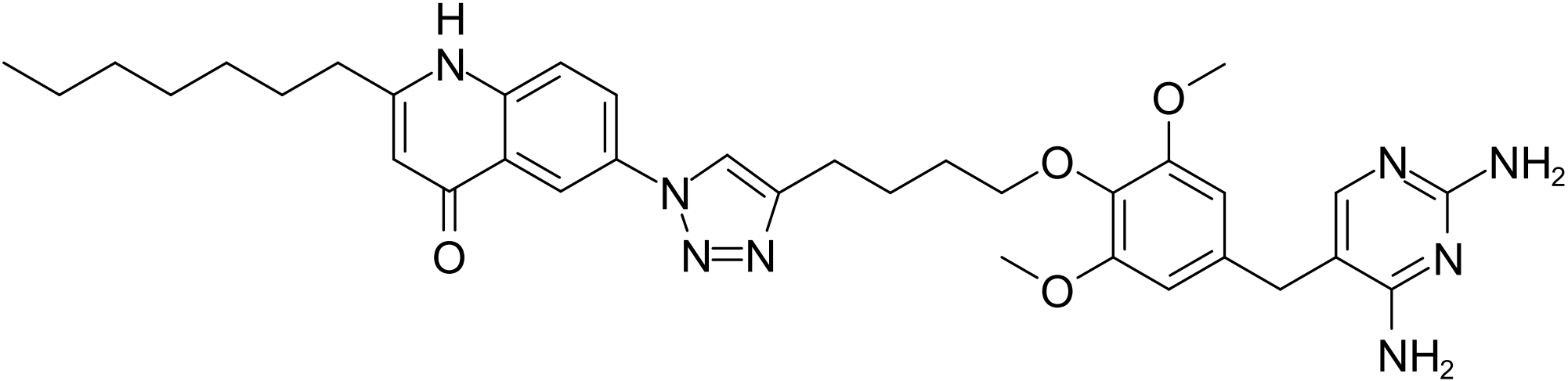

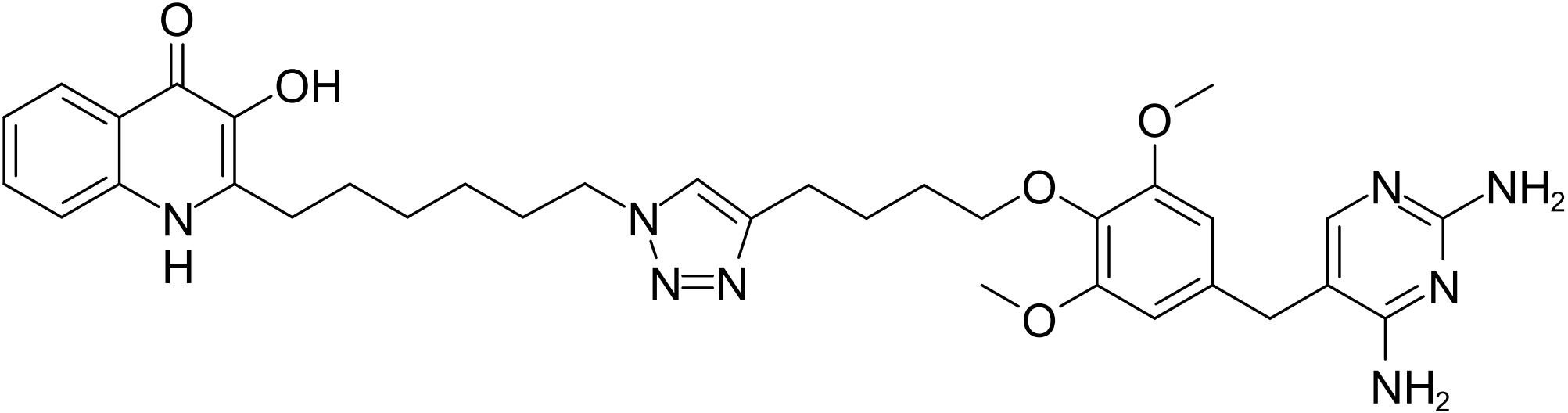
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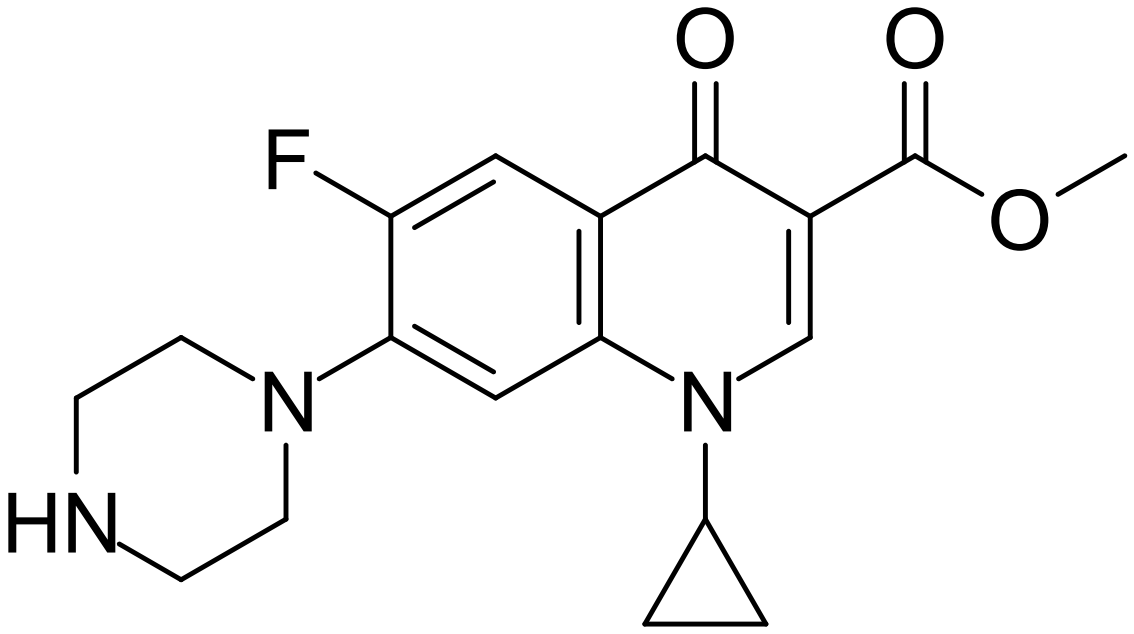
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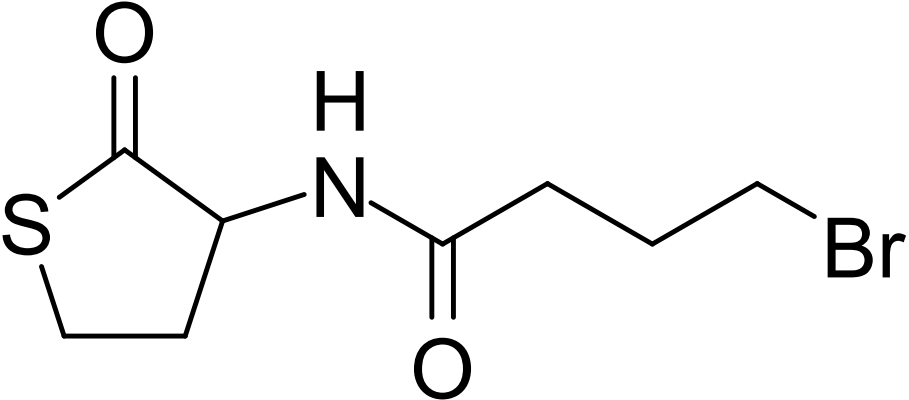
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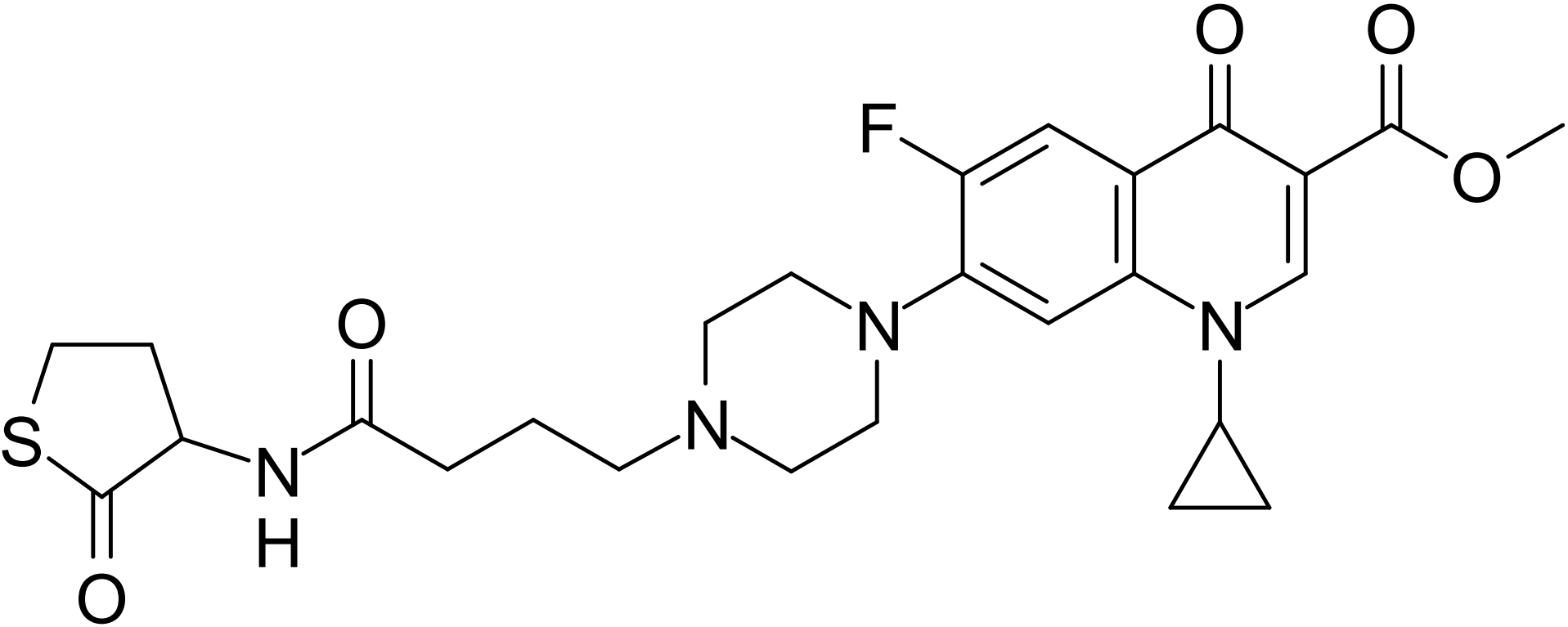
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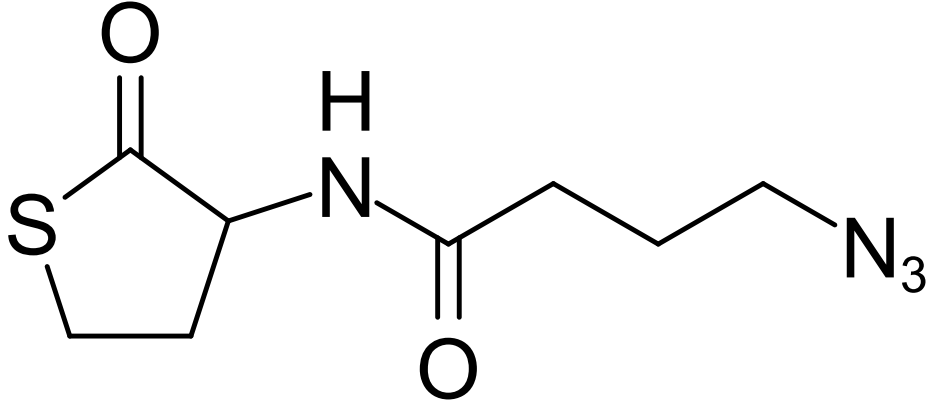
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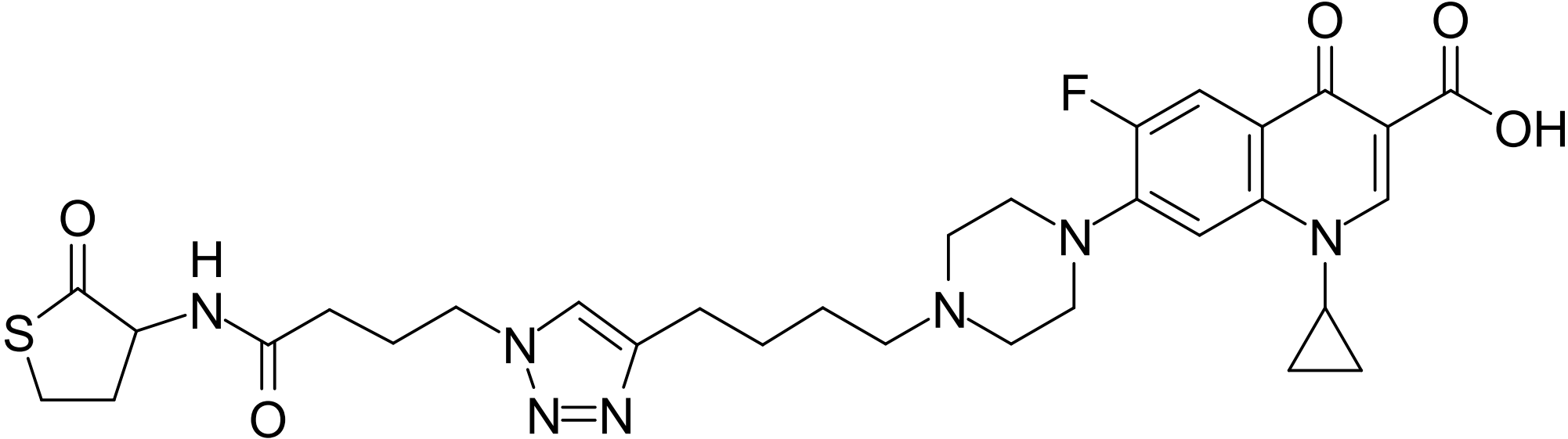
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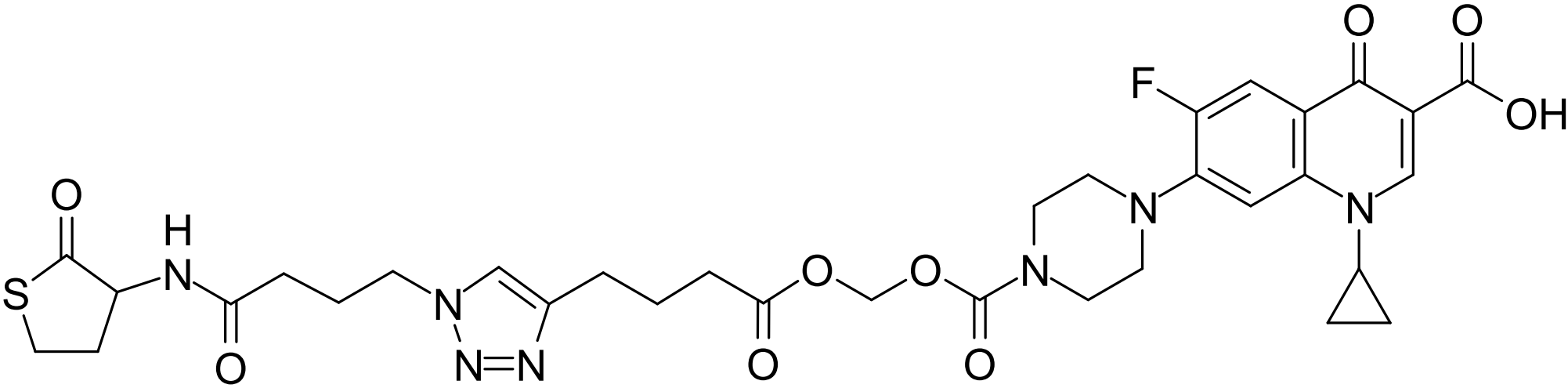
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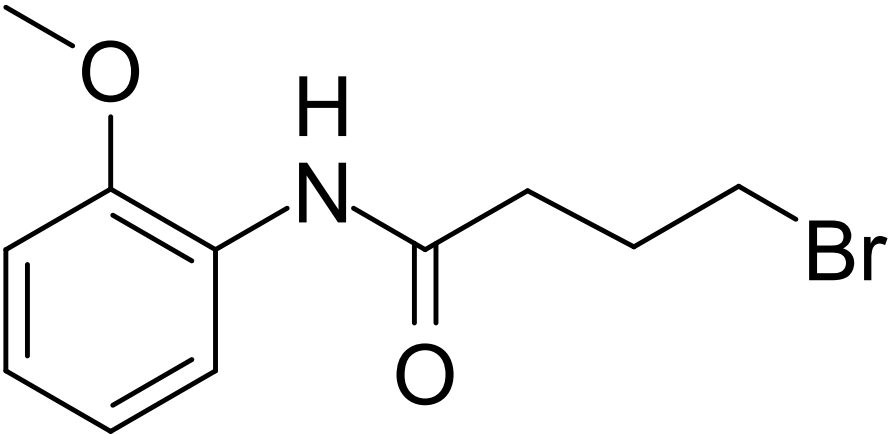
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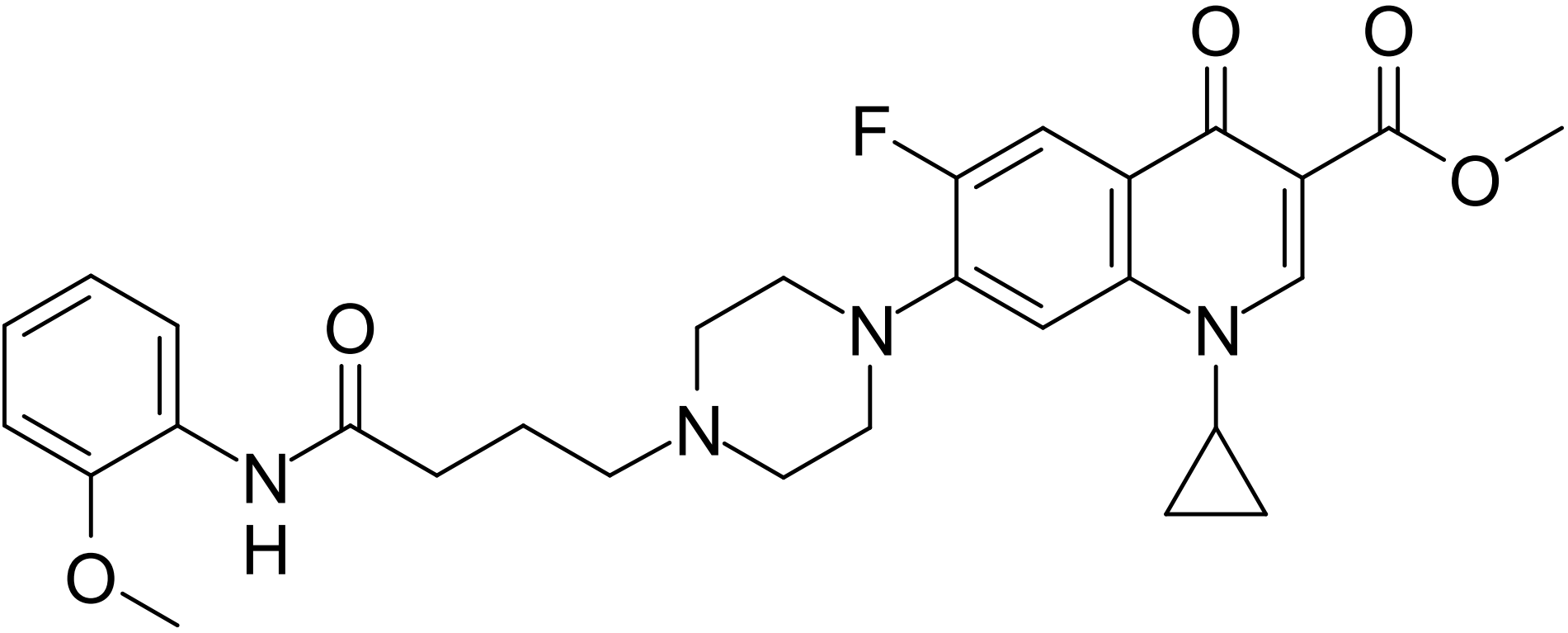
O
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N
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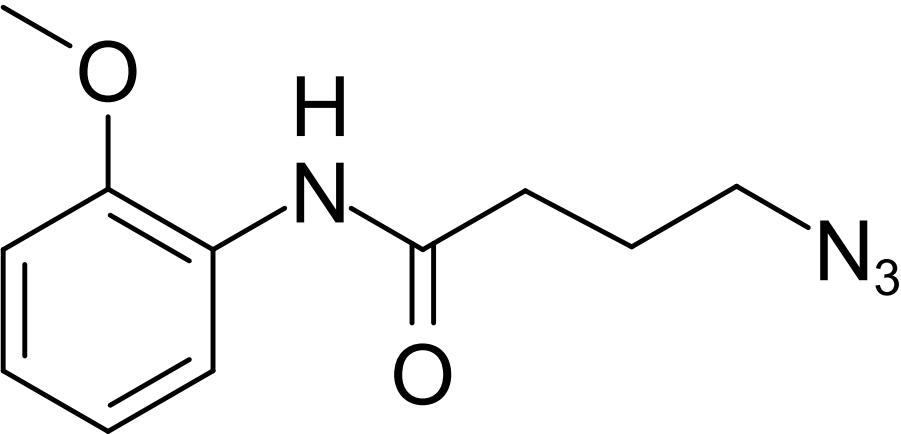
O
O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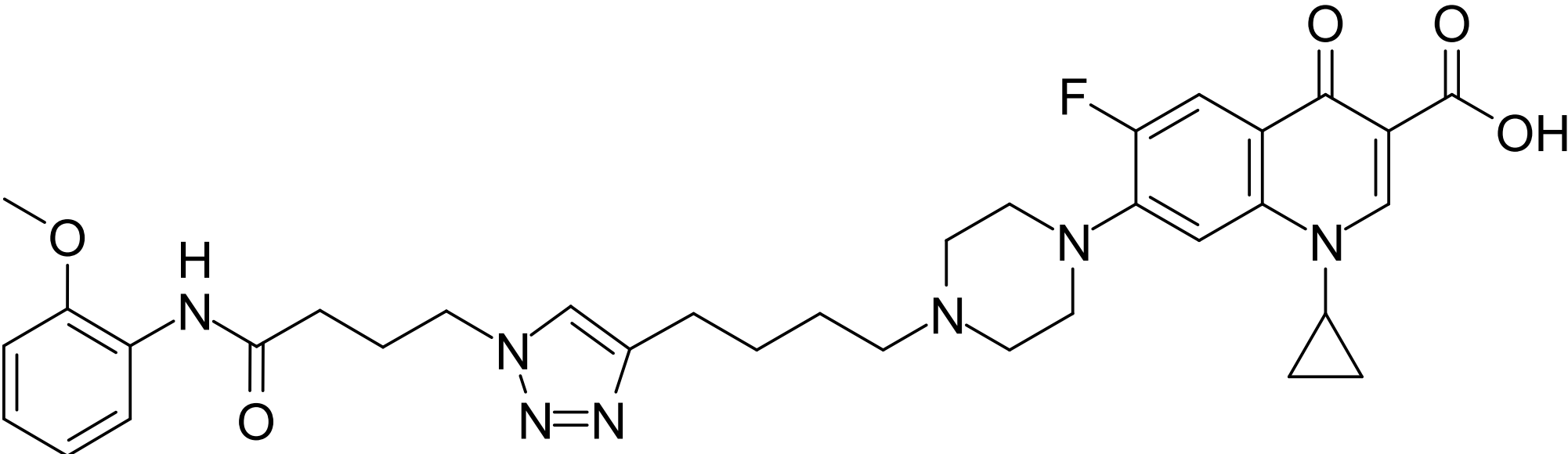
N3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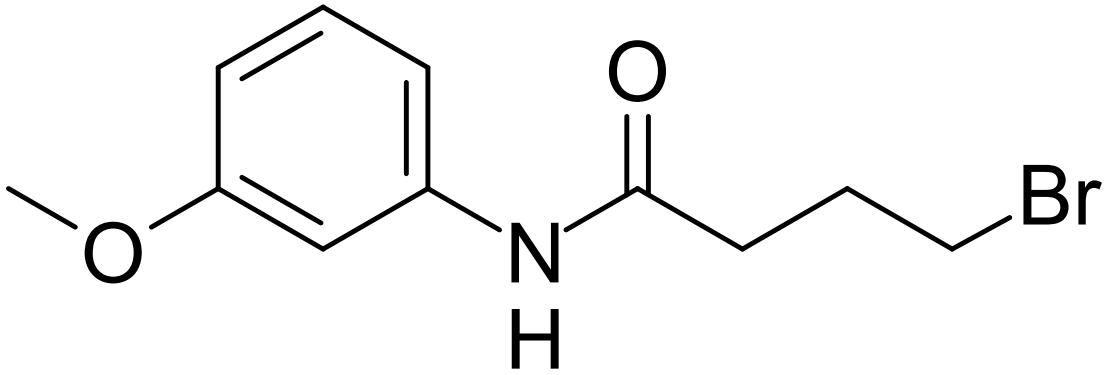
O
OH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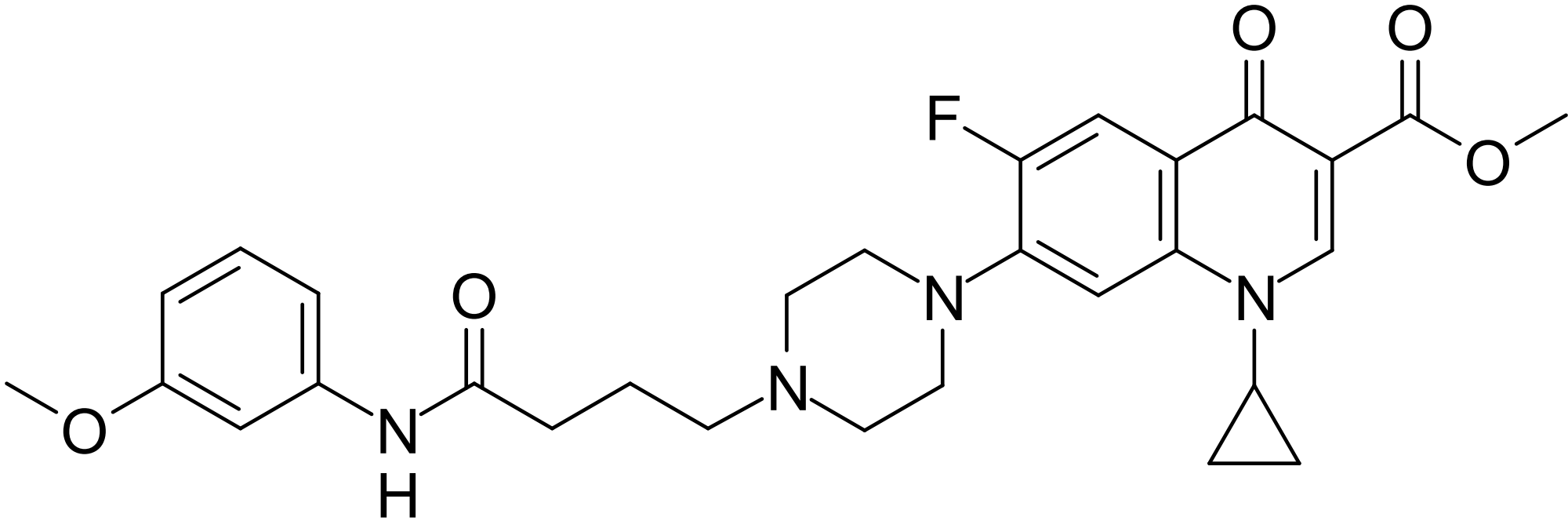

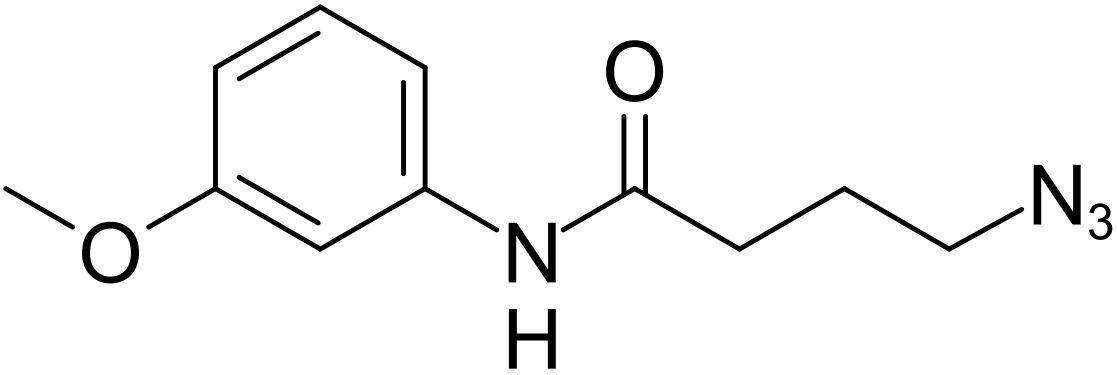
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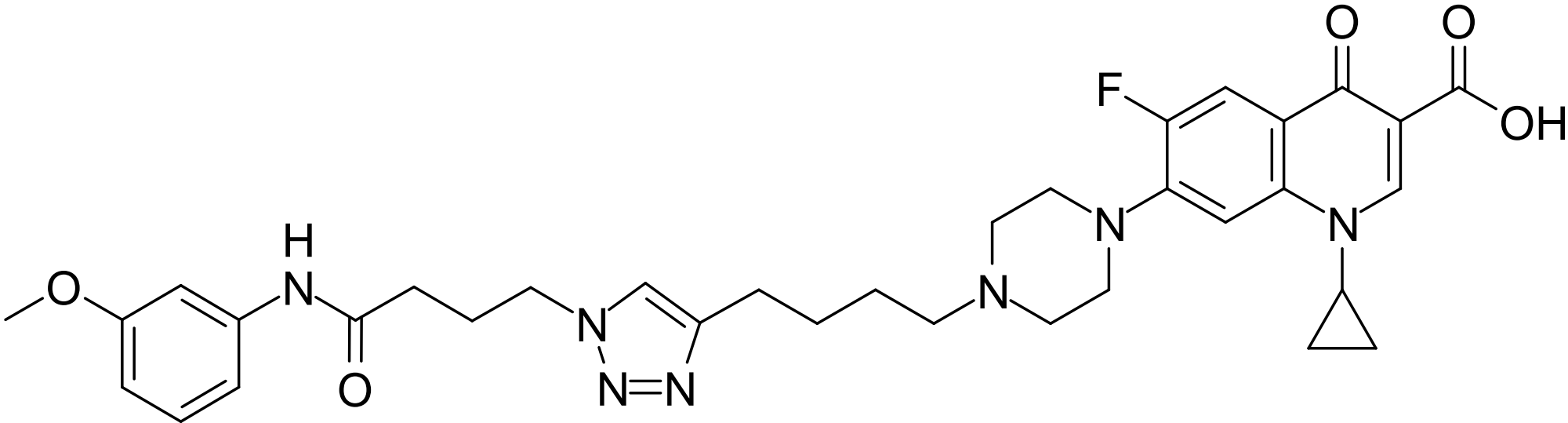
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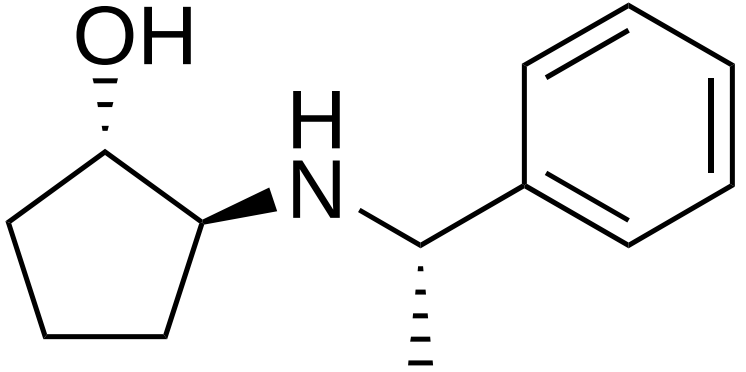
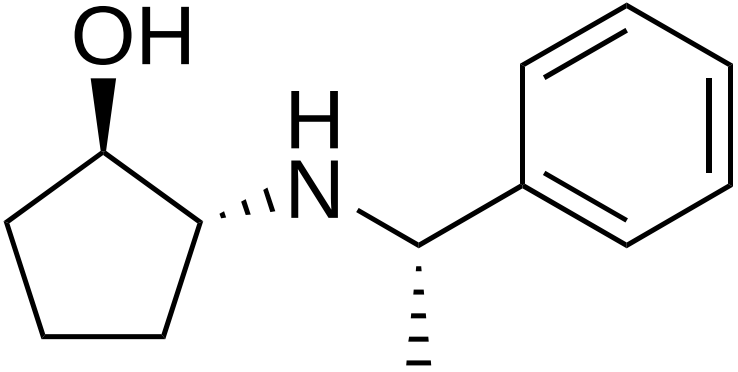
N=N



119



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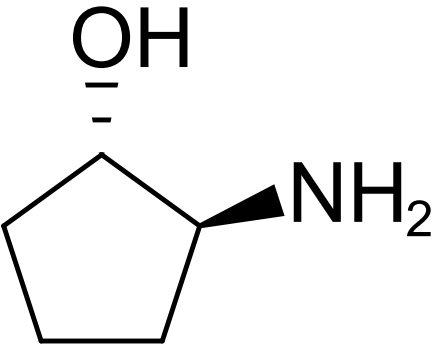
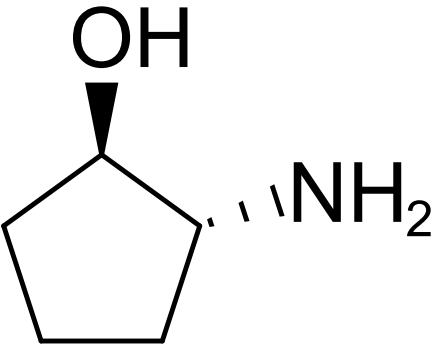

OH
NH2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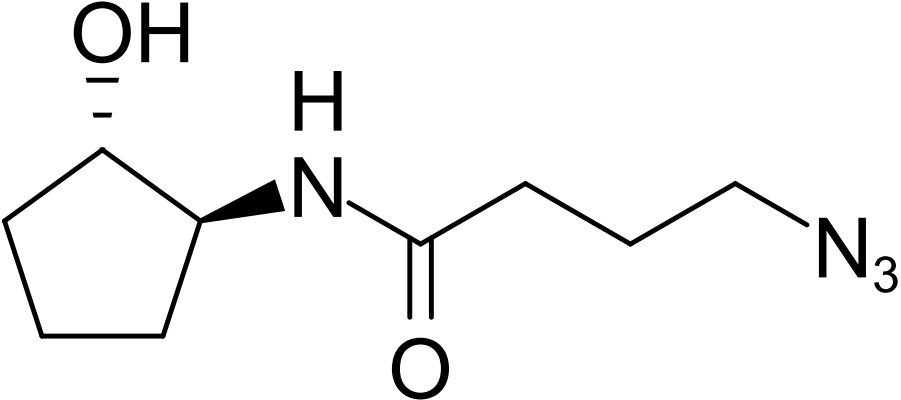
NH2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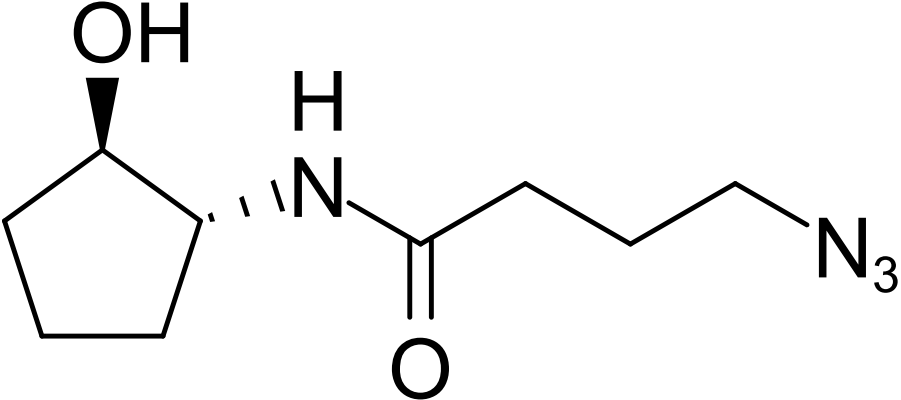
N
O
N3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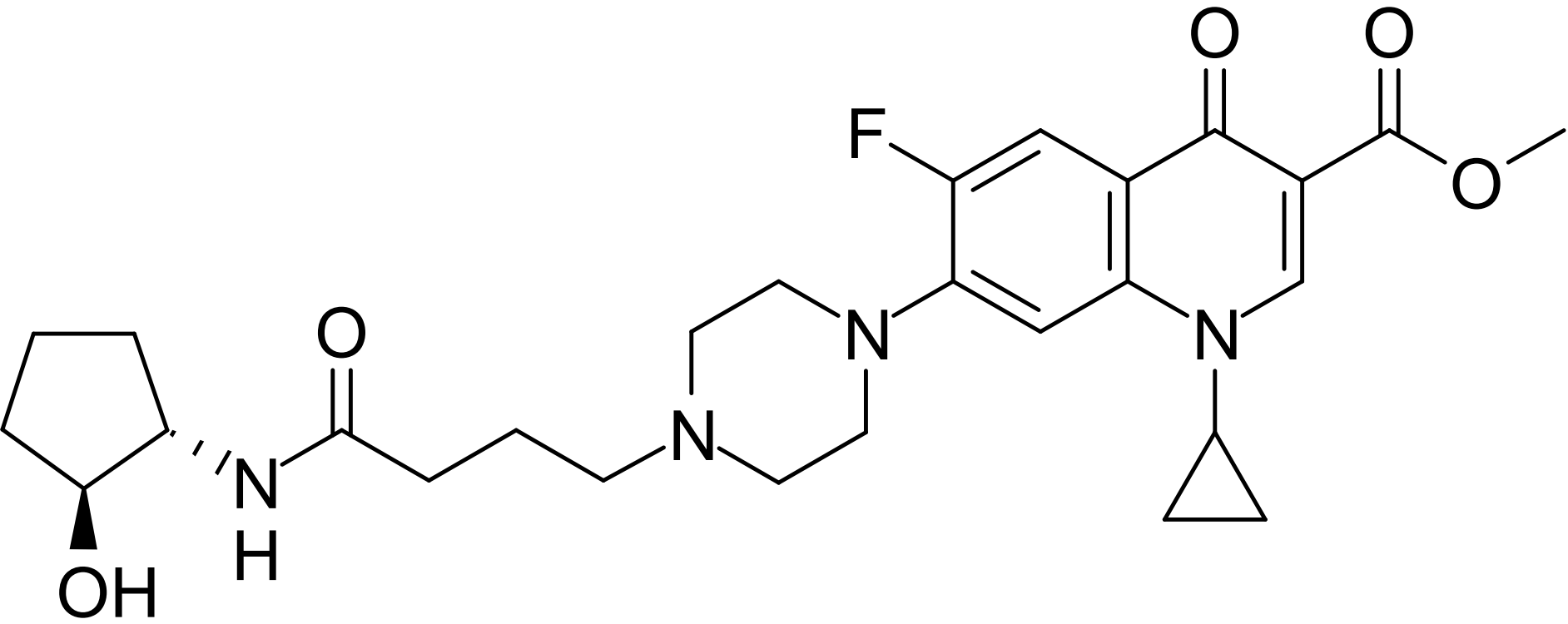
N3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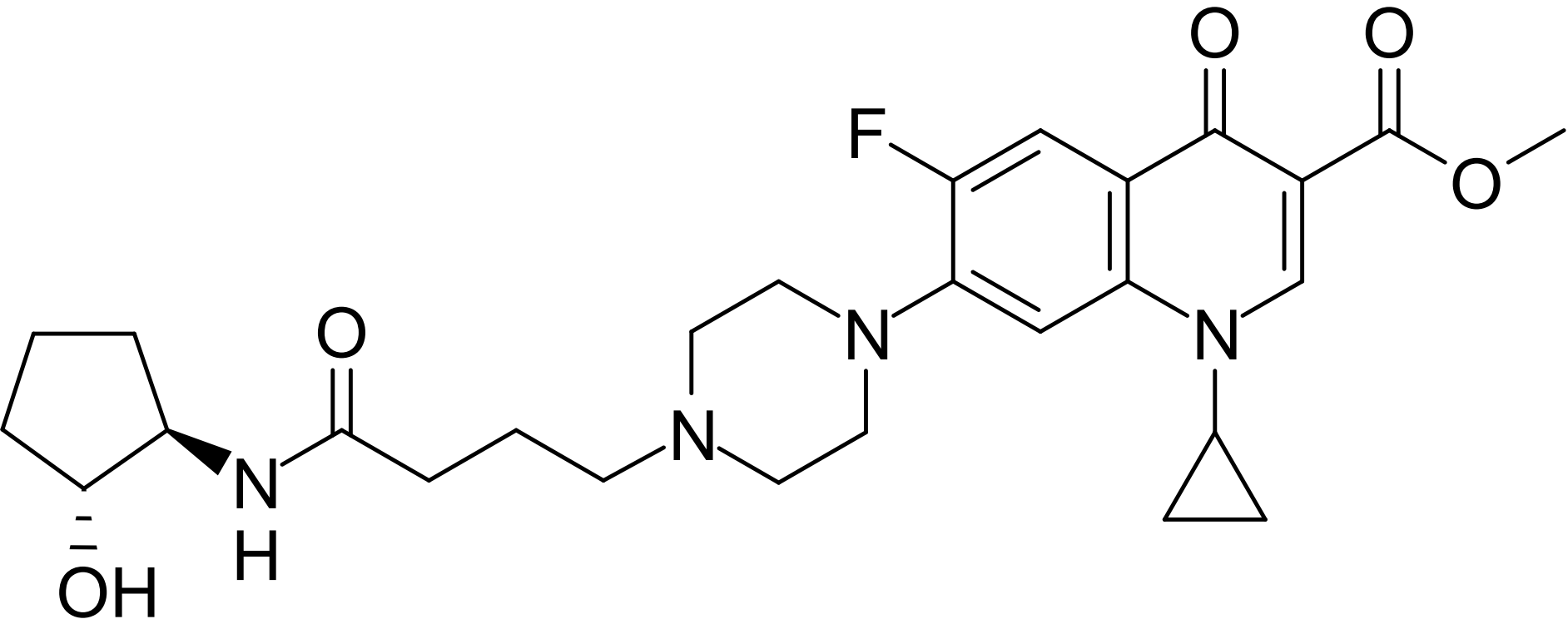
OH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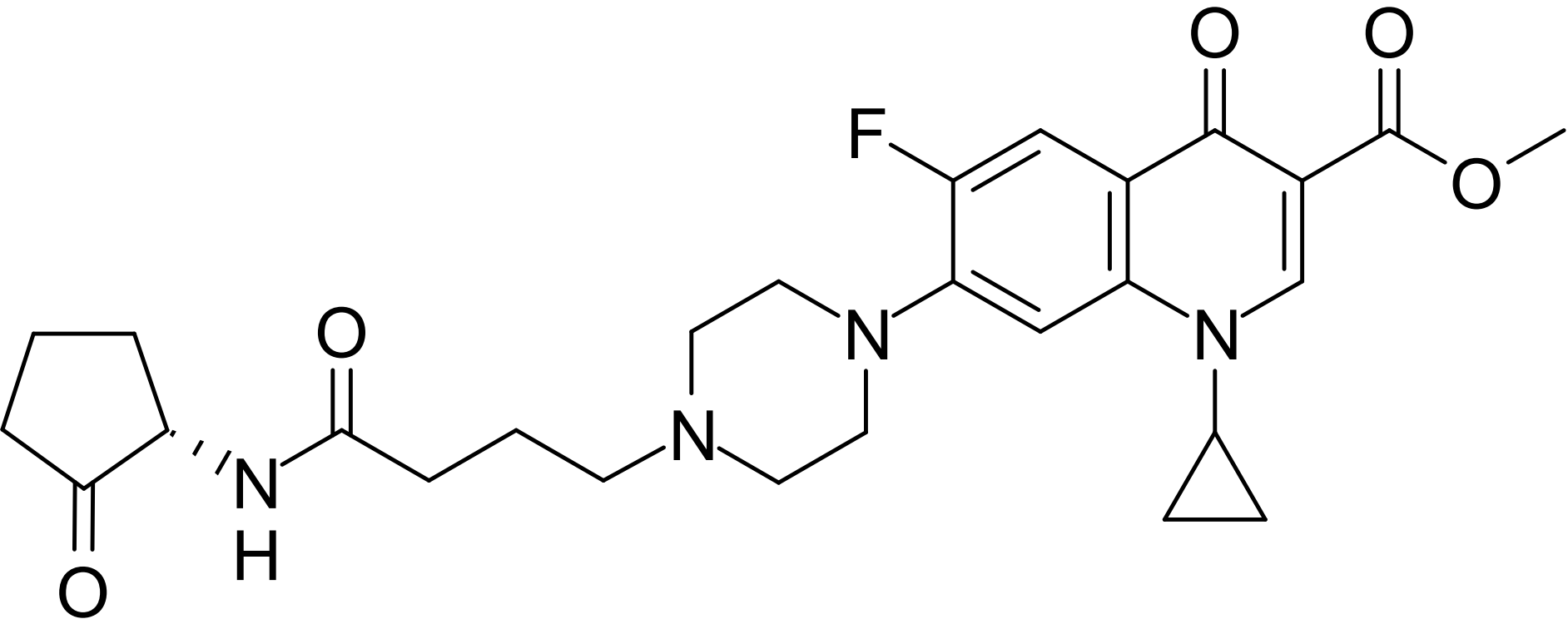
OH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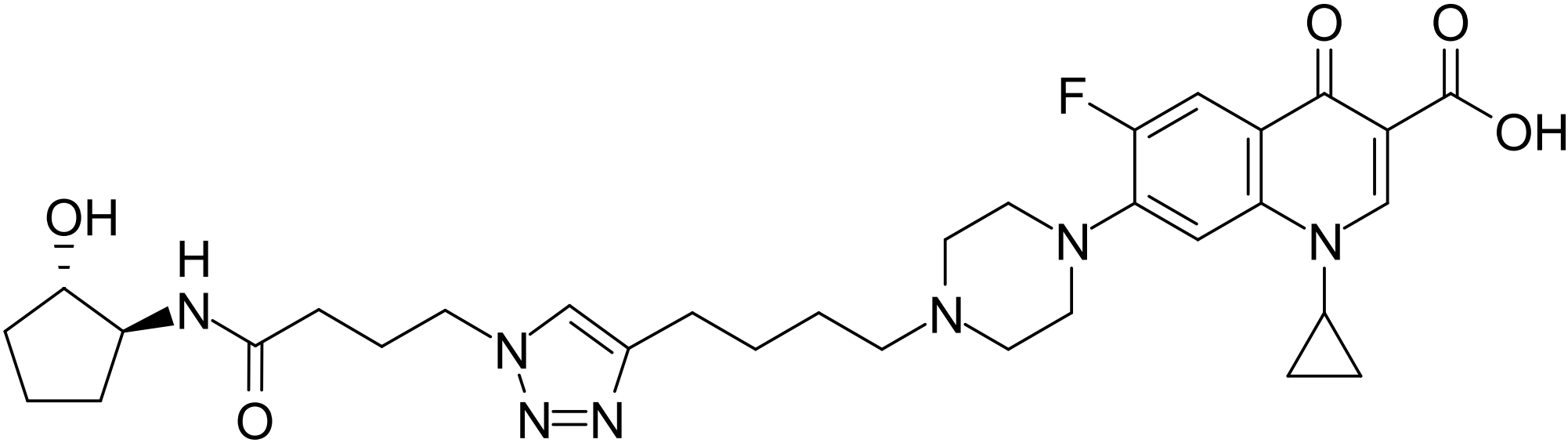
OH
H
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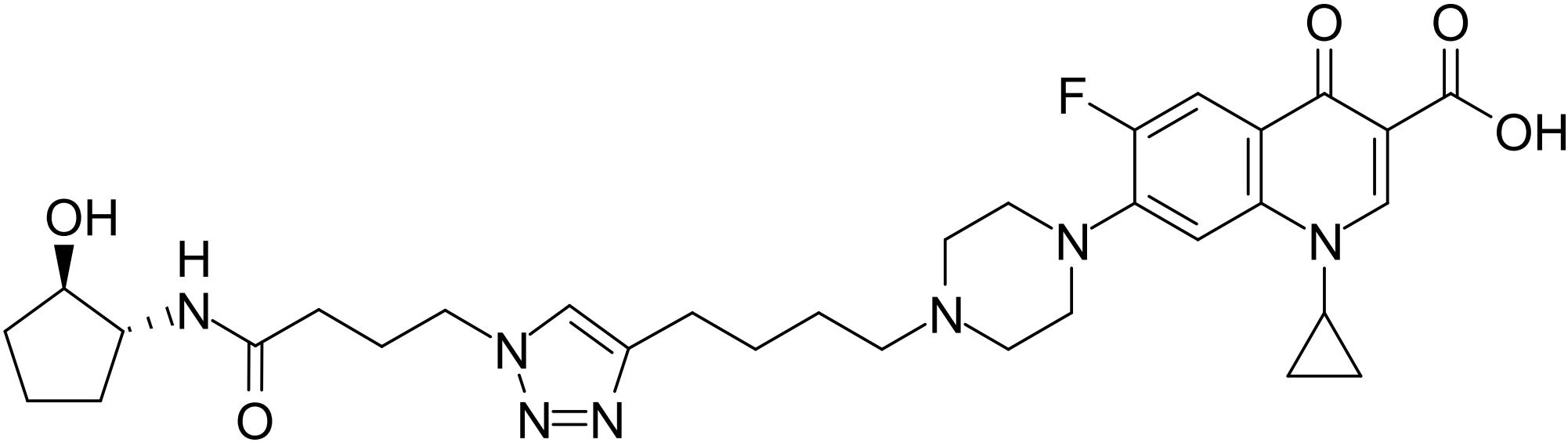
N
N=N
N
N
F
O
O
OH


OH
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N=N
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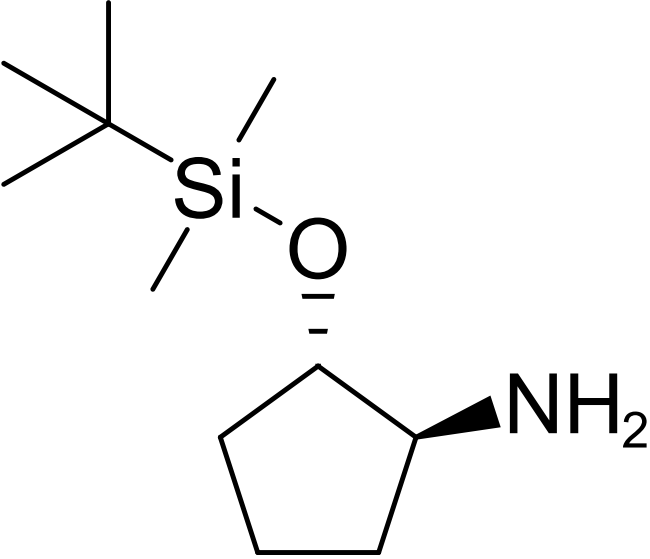
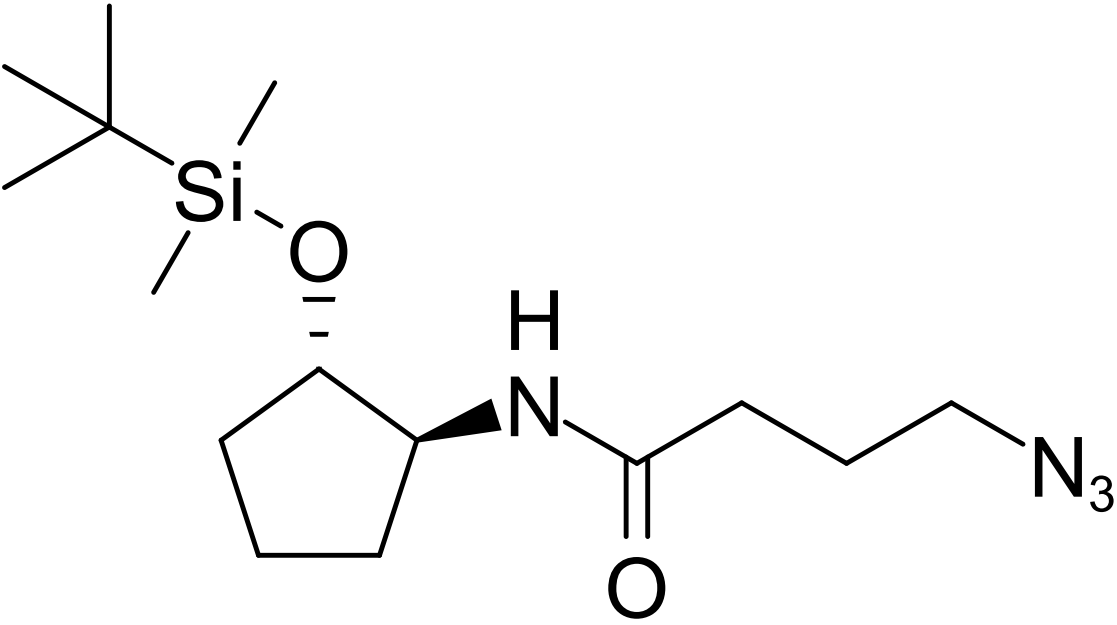
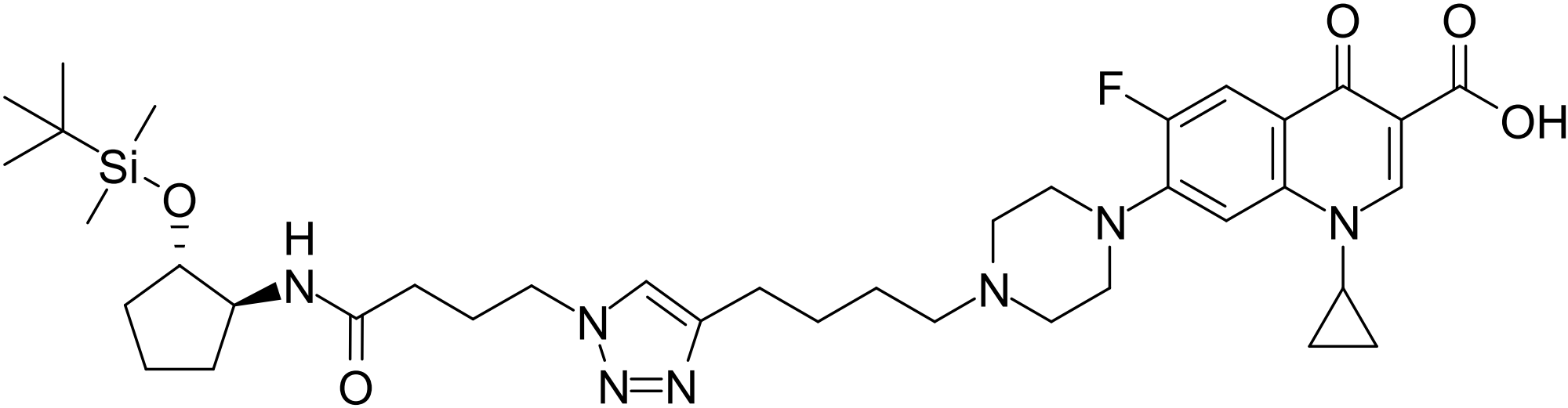
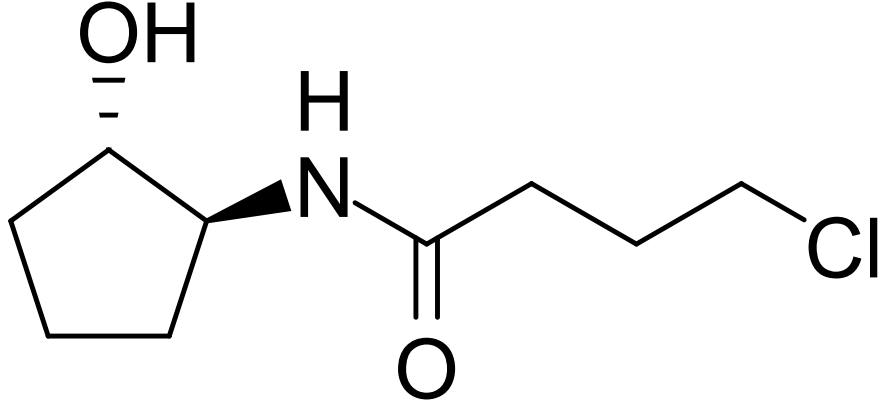
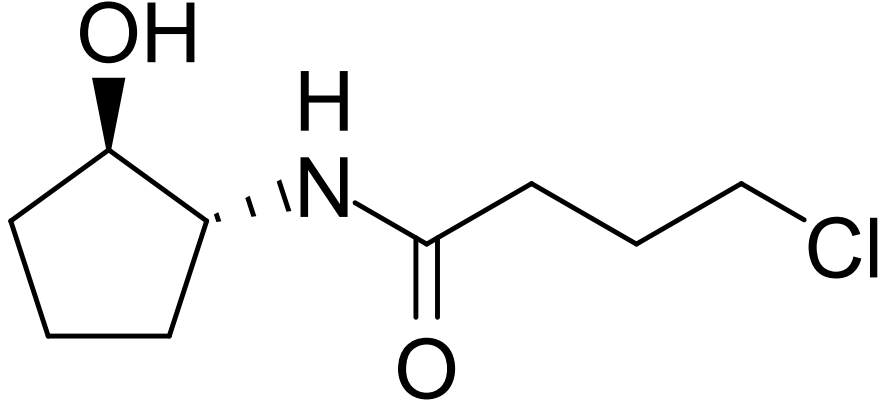
O
OH
N

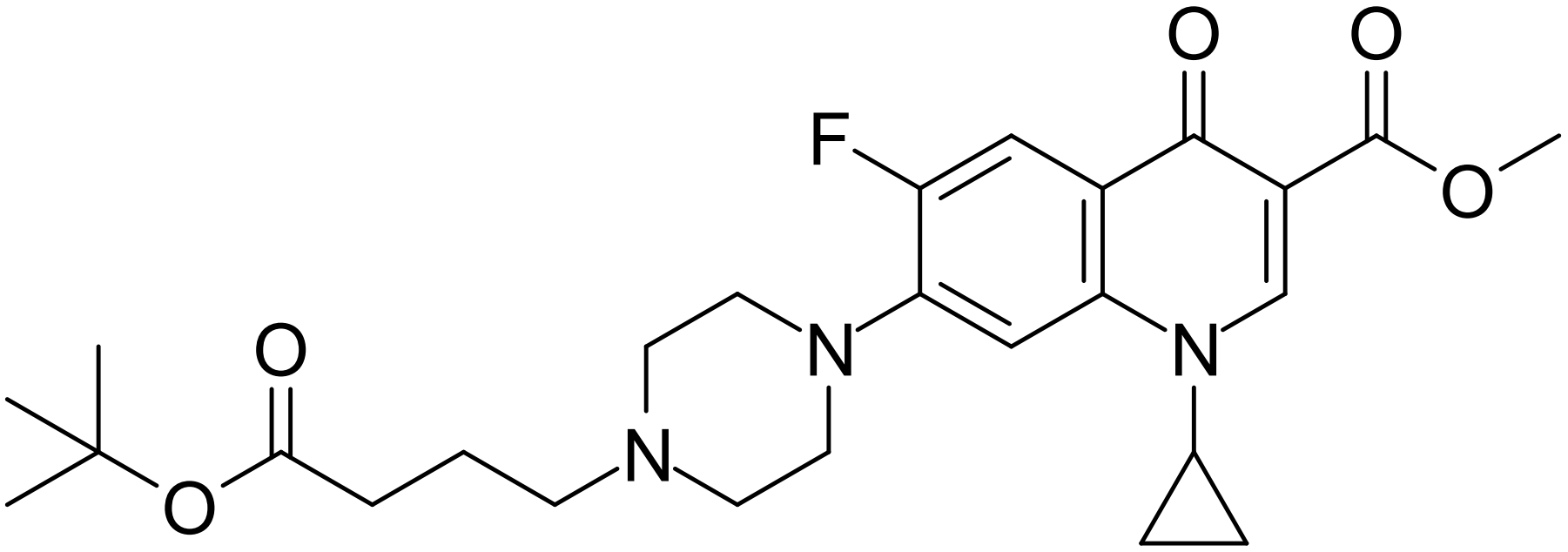

Si
O
NH2

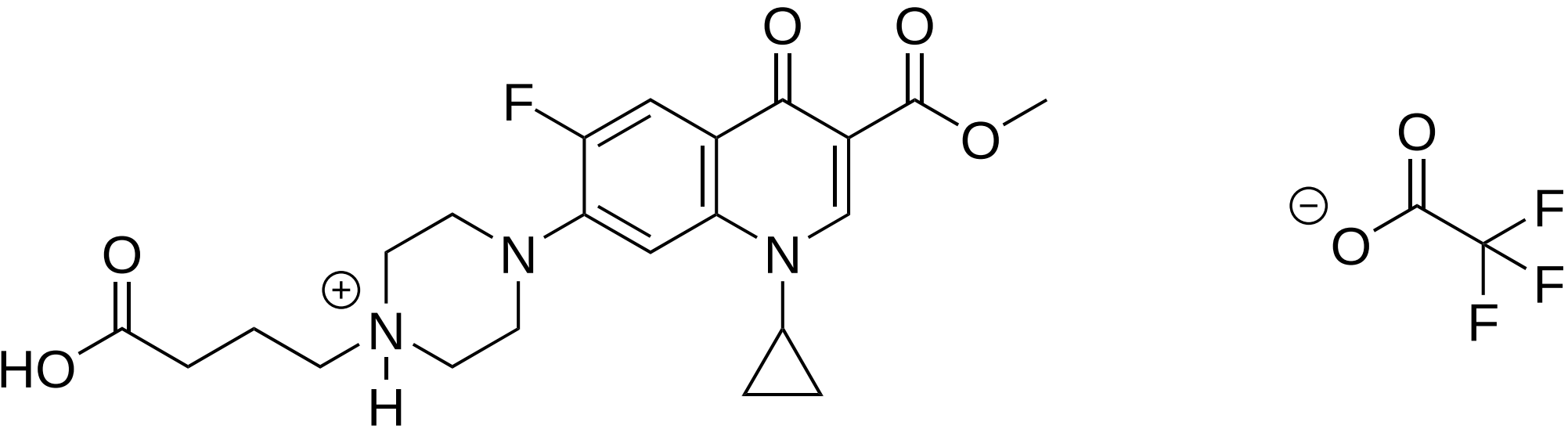

Si
O
H
N
O
N3

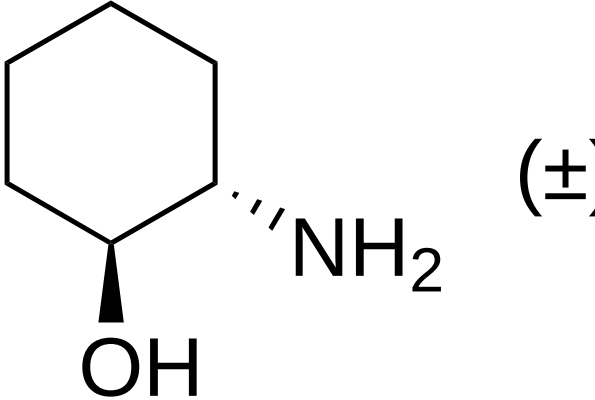

Si
O
H
N
O
N
N=N
N
N
F
O
O
OH

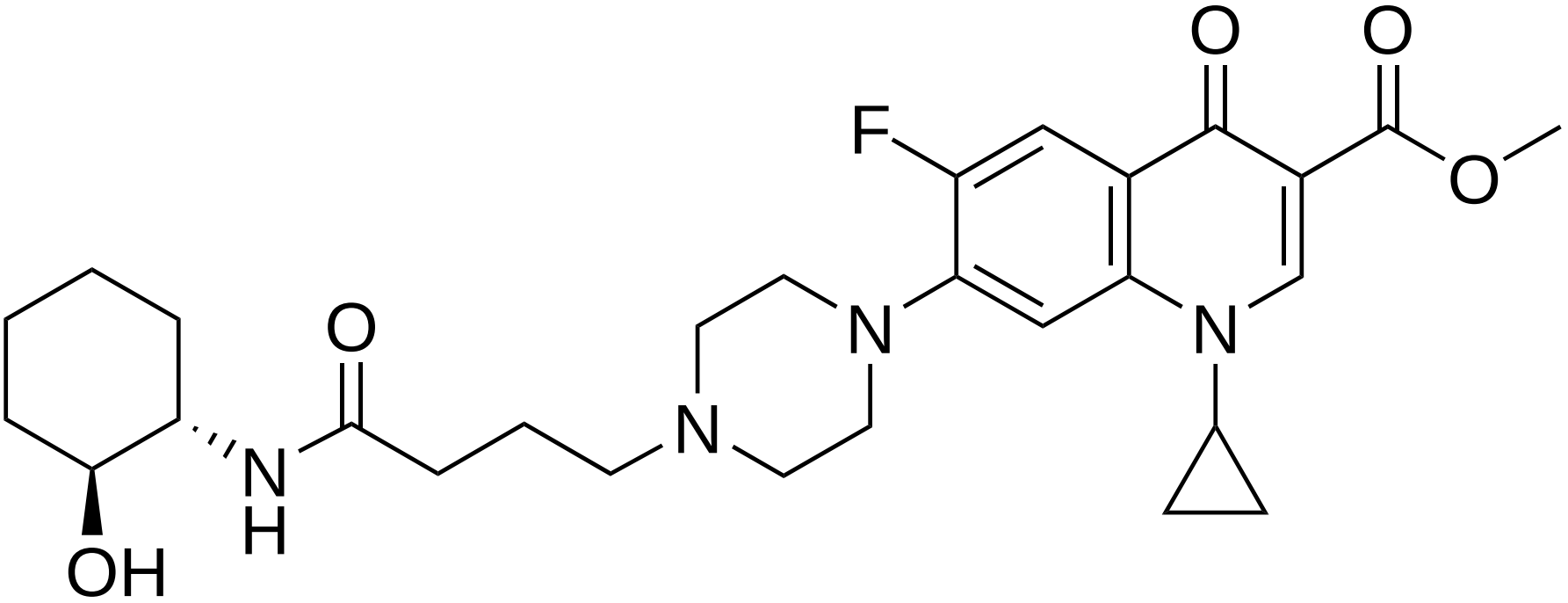

OH
H
N
Cl
O


OH
H
N
O
Cl

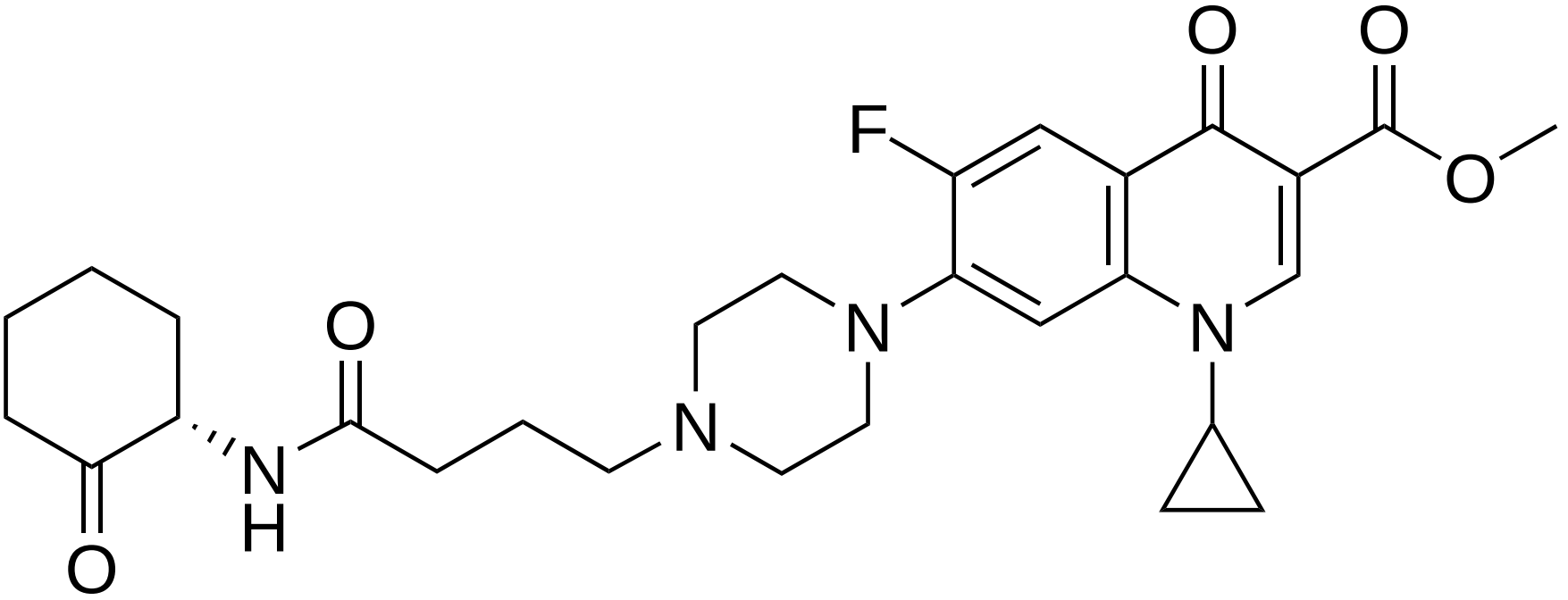

O
O
F
O
O
N
N
N
O
O


O
O
F
O
O
N
N
HO
N
H
O
O
F
F
F

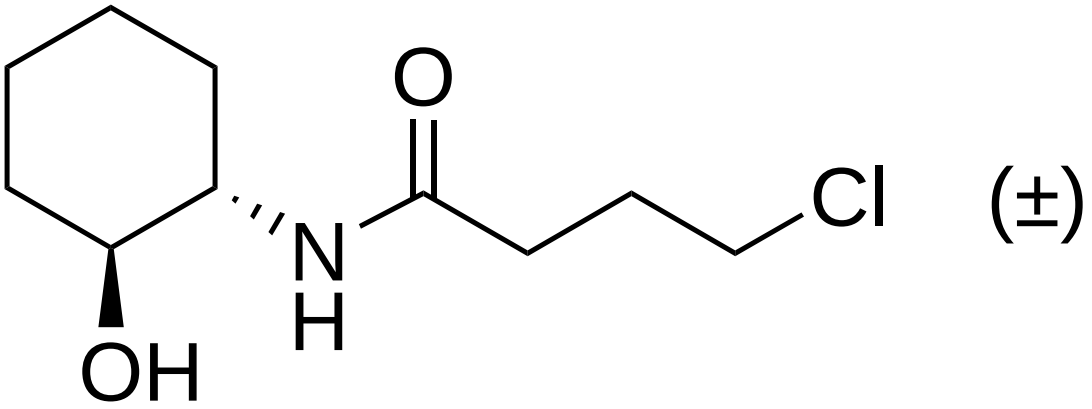

NH2
OH
(±)

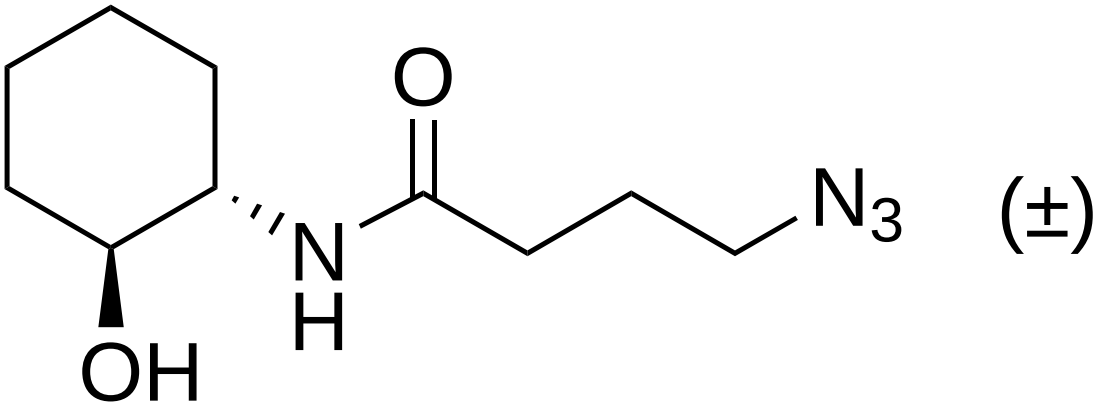

O
O
F
O
O
N
N
N
N
H
OH

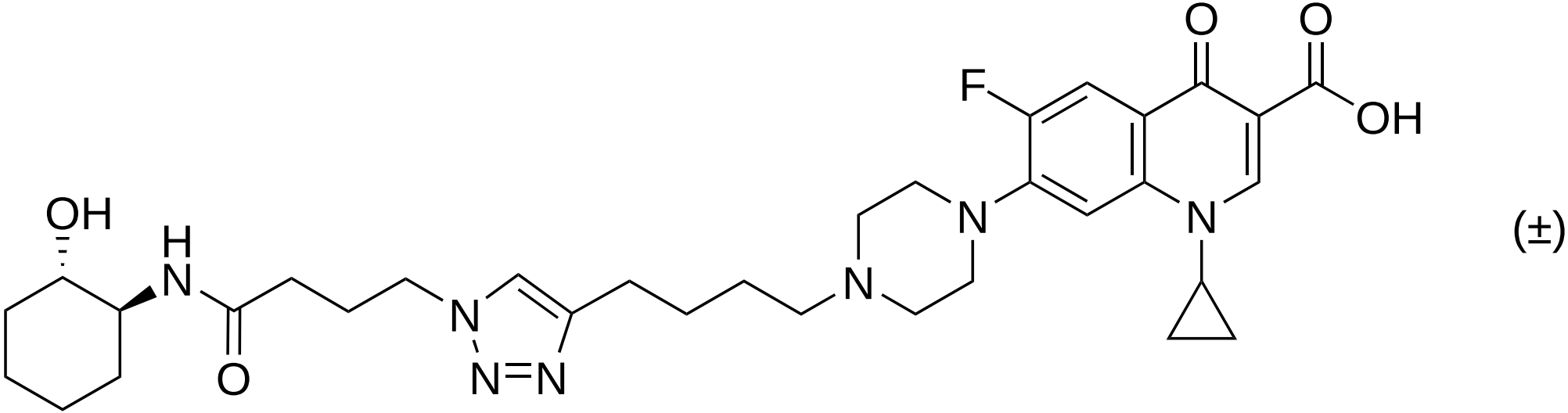
(±)


O
O
F
O
O
N
N
N
N
H
O
O

(±)


O
N
H
OH
Cl
(±)


O
N
H
OH
N3
(±)


OH
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N
N=N
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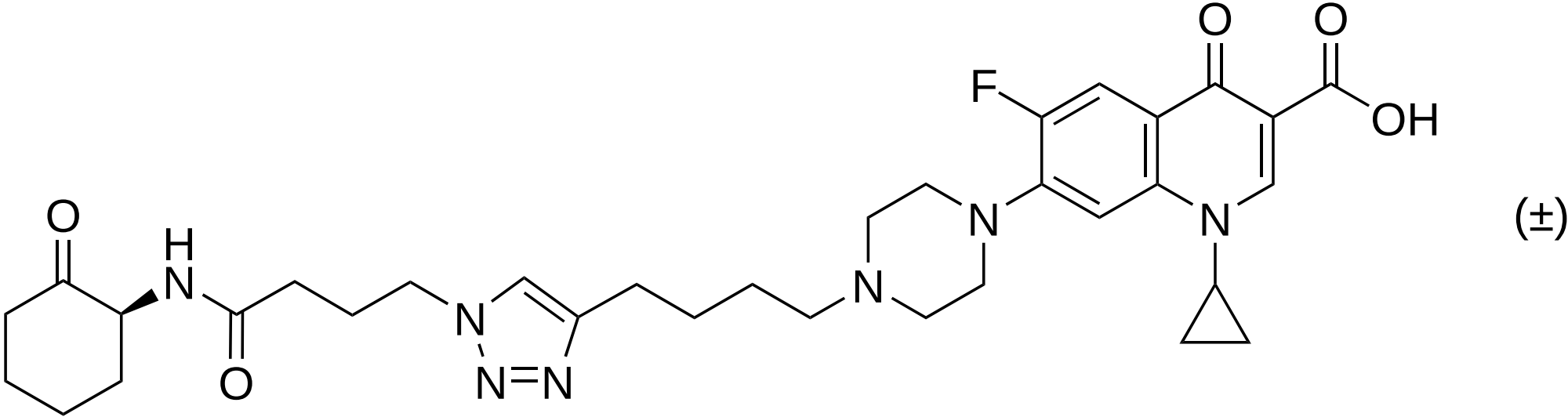
F
O
O
OH
(±)


O
H
N
O
N
N=N
N
N
F
O
O
OH

(±)