

## **SUPPLEMENTARY INFORMATION**

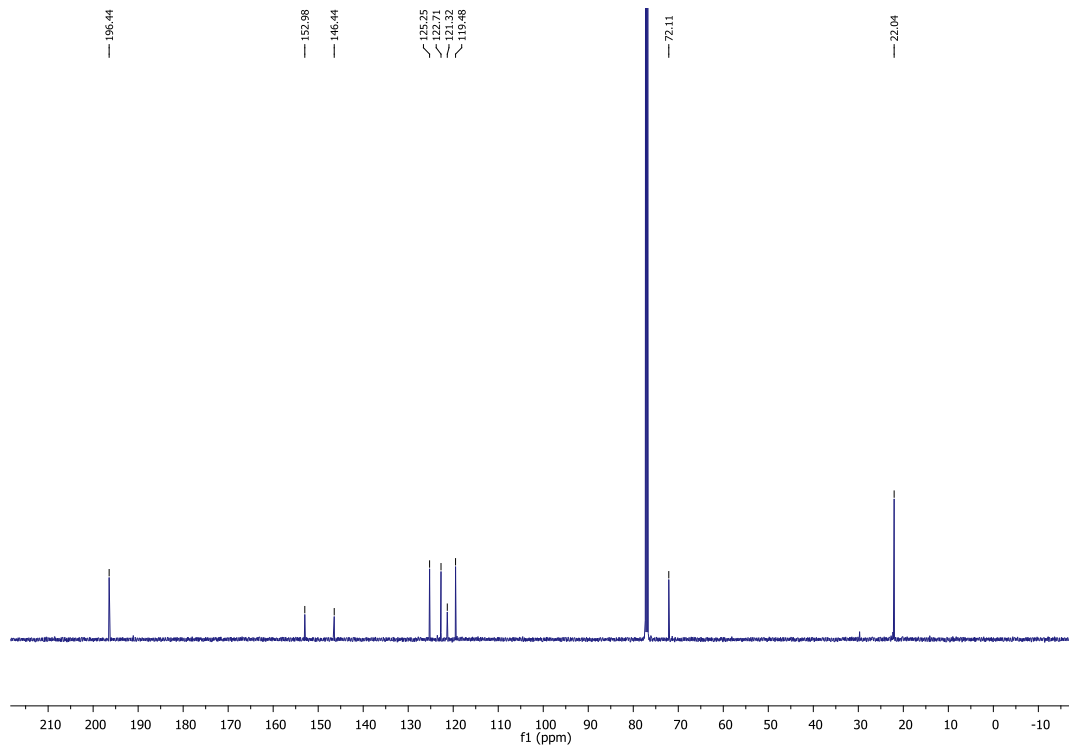
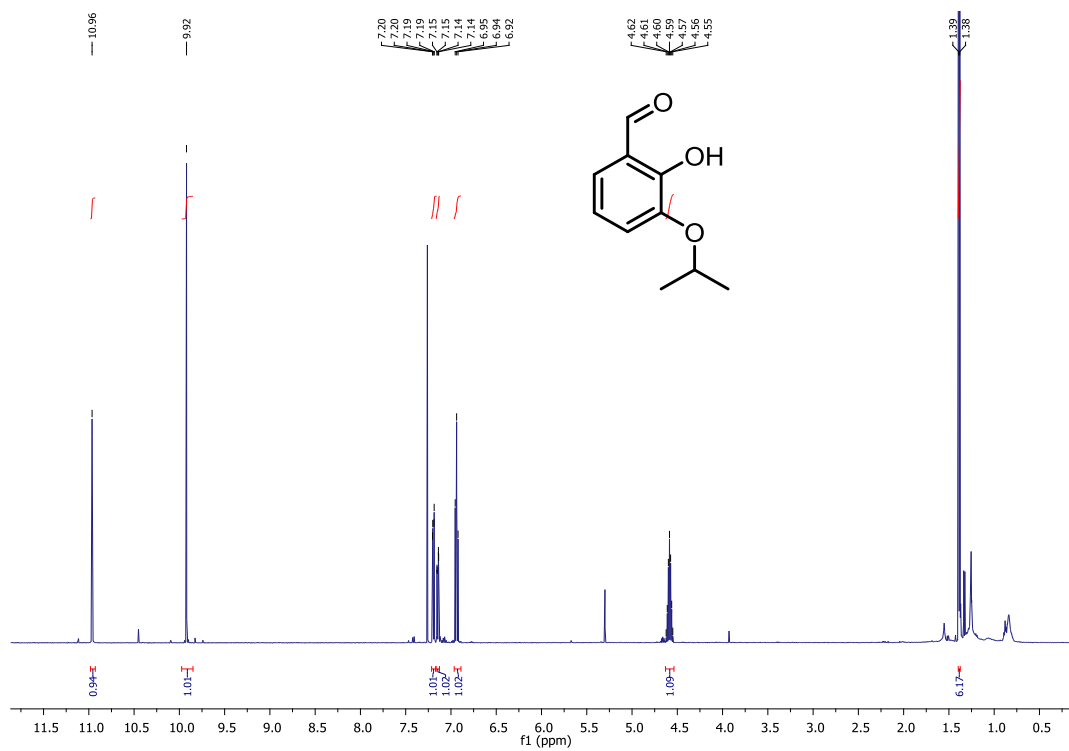
# Structural optimization and photopharmacological studies of the cystobactamids class of natural products

Der Naturwissenschaftlichen Fakultät der  
Gottfried Wilhelm Leibniz Universität Hannover

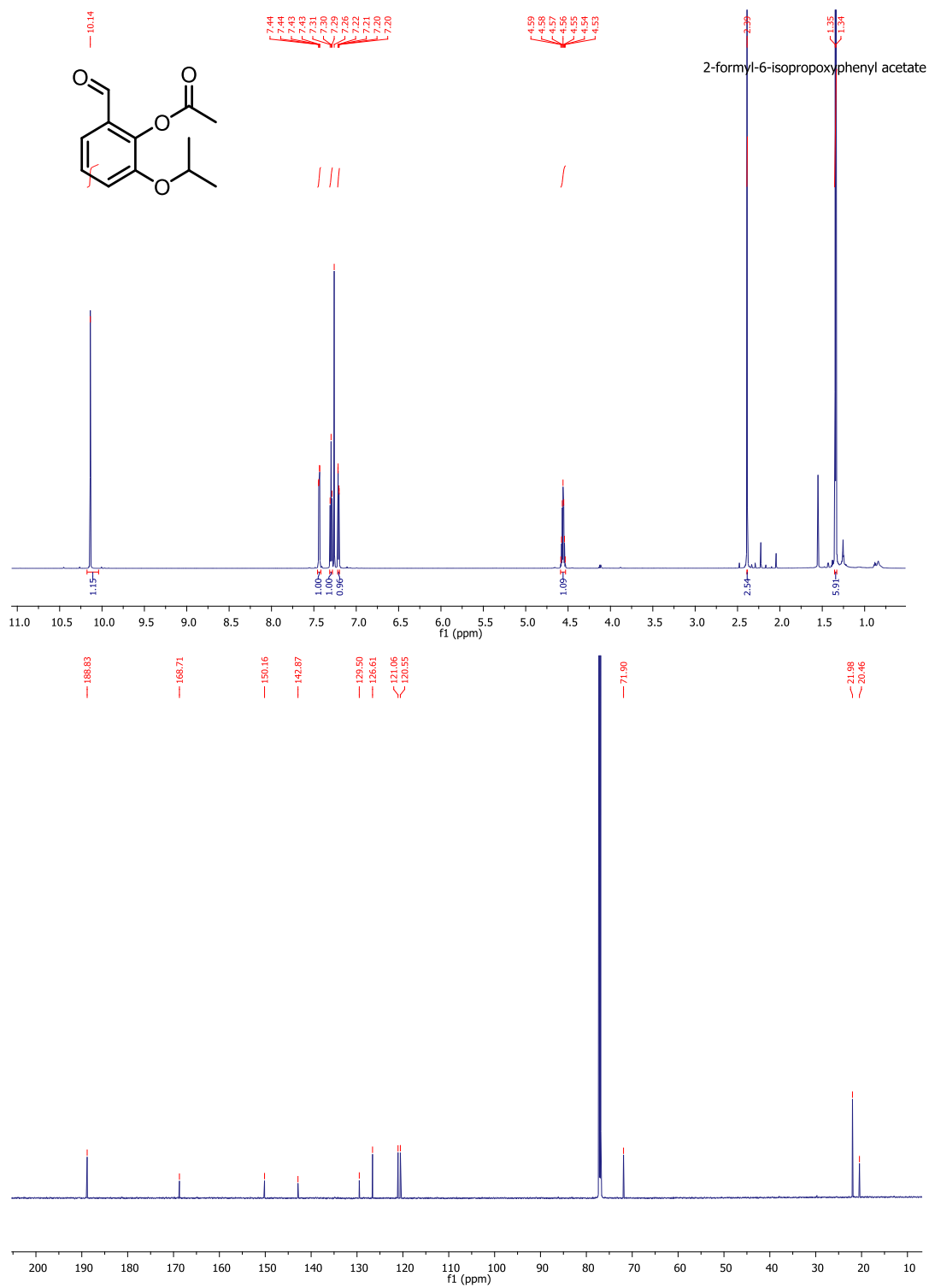
Teil der vorgelegten Dissertation  
von  
Giambattista Testolin, M. Sc.

# NMR spectra:

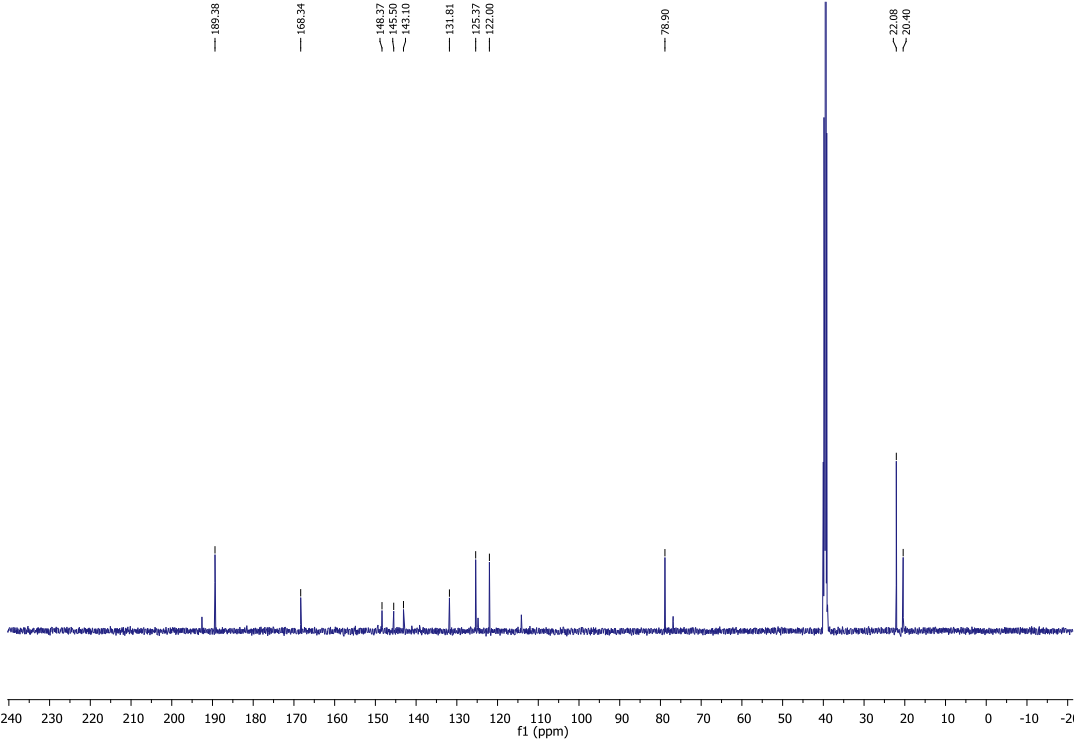
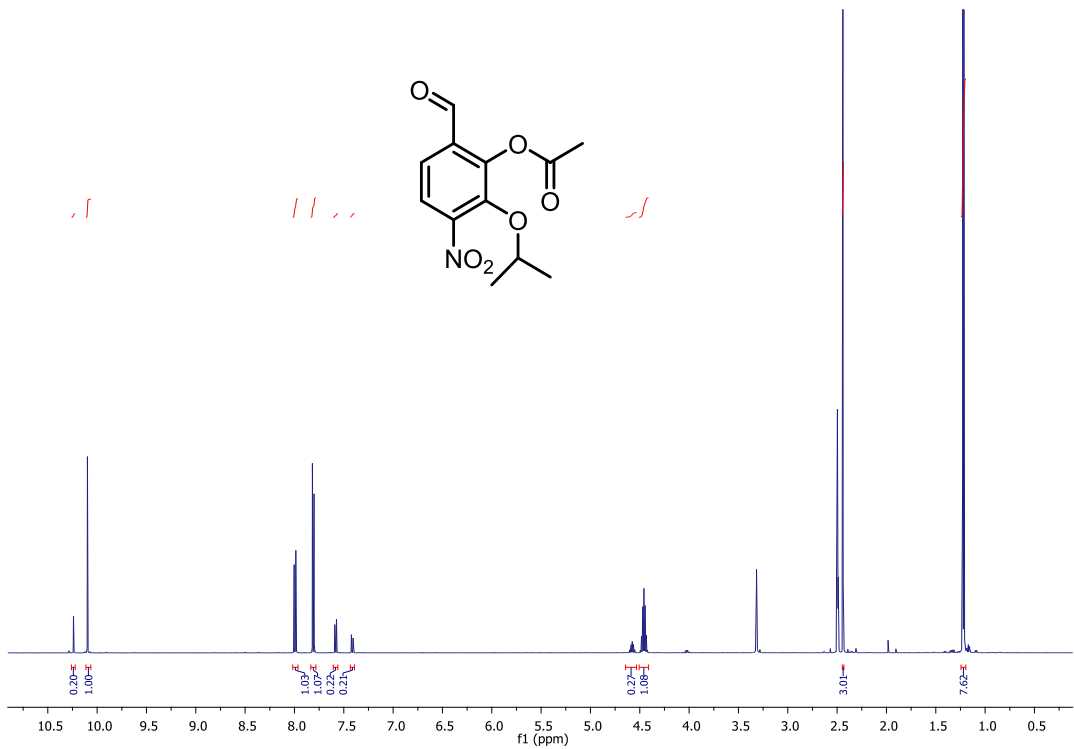
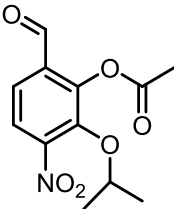
## 2-Hydroxy-3-isopropoxybenzaldehyde



# 2-Formyl-6-isopropoxyphenyl acetate

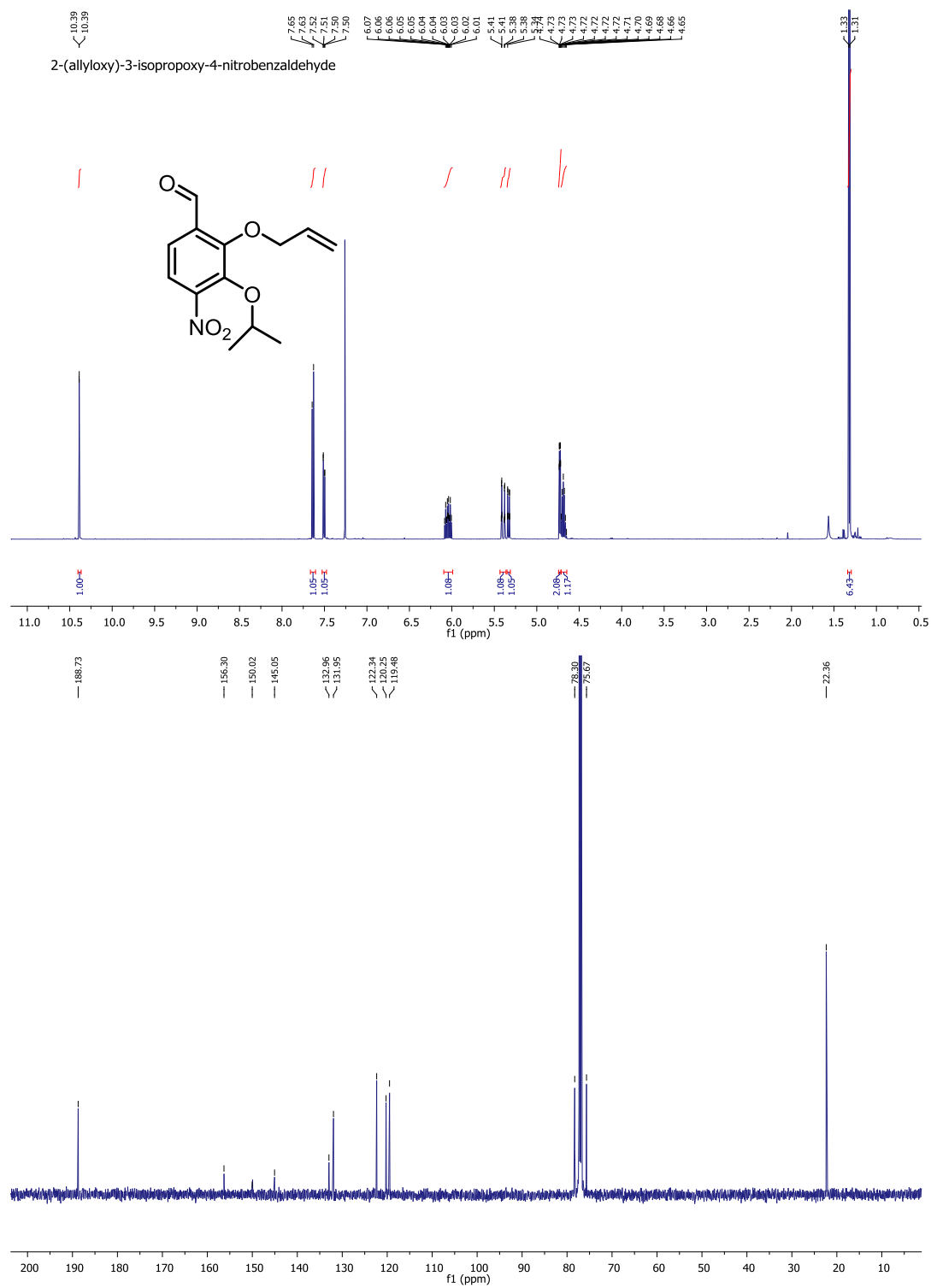


6-Formyl-2-isopropoxy-3-nitrophenyl acetate





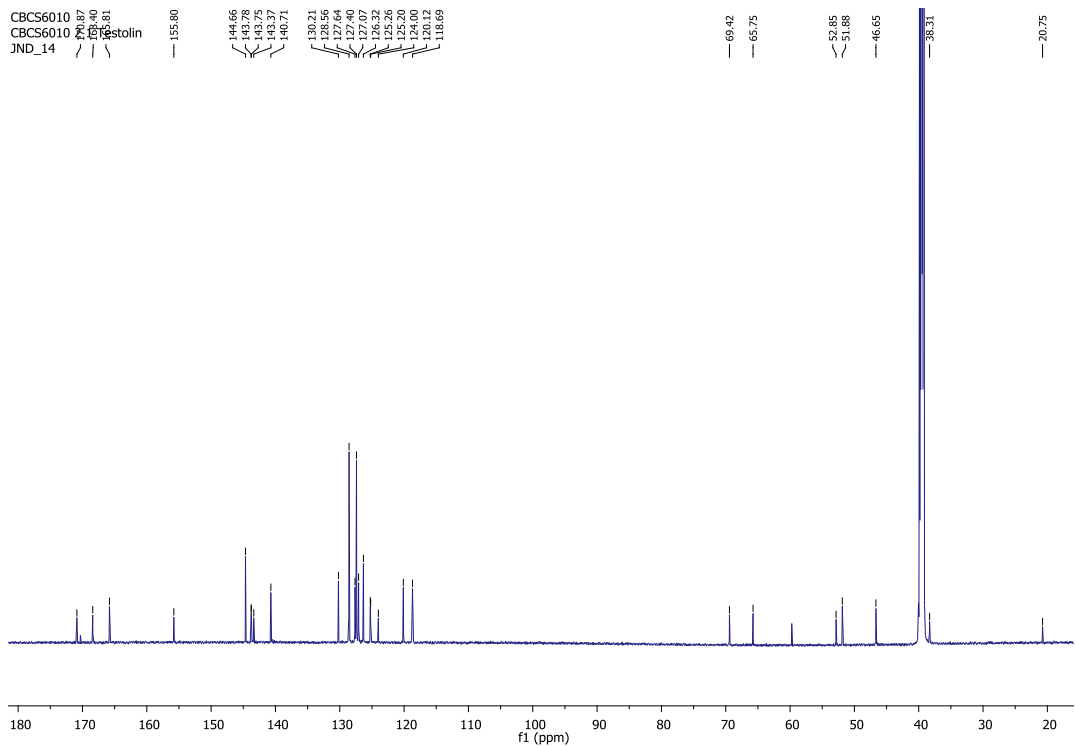
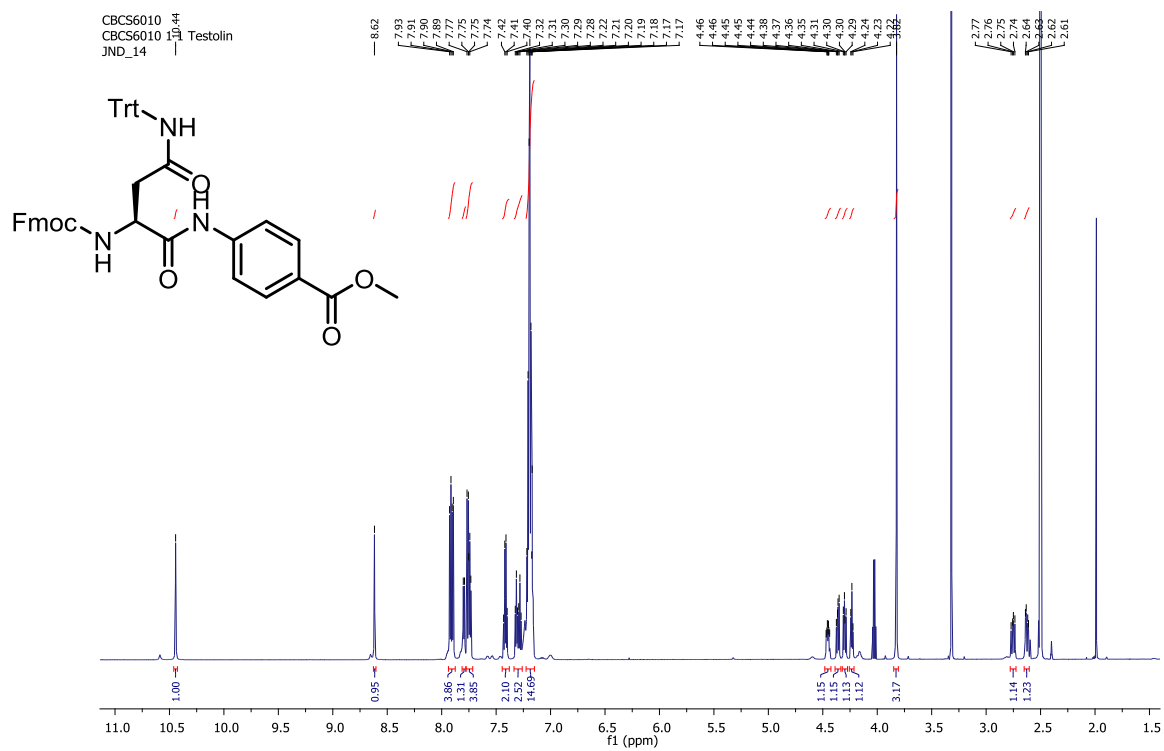
# 2-(Allyloxy)-3-isopropoxy-4-nitrobenzaldehyde



Methyl

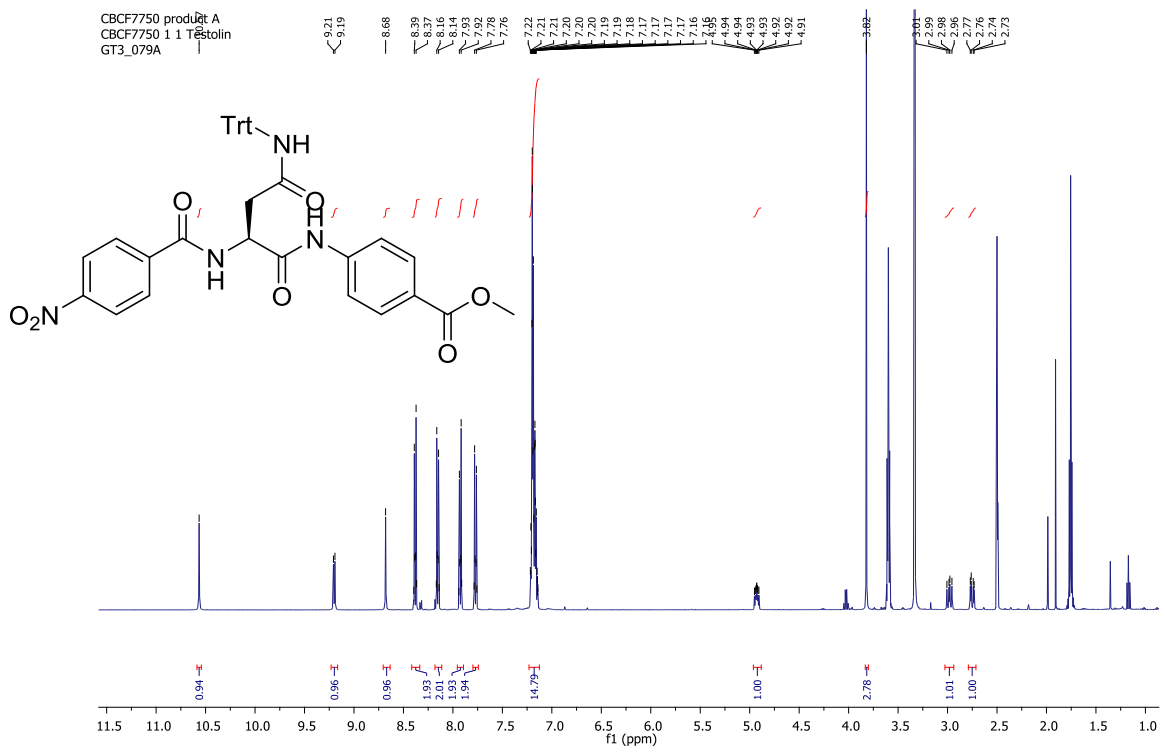
(S)-4-(2-(((9H-fluoren-9-yl)methoxy)carbonyl)amino)-4-oxo-4-

(tritylamino)butanamido)benzoate

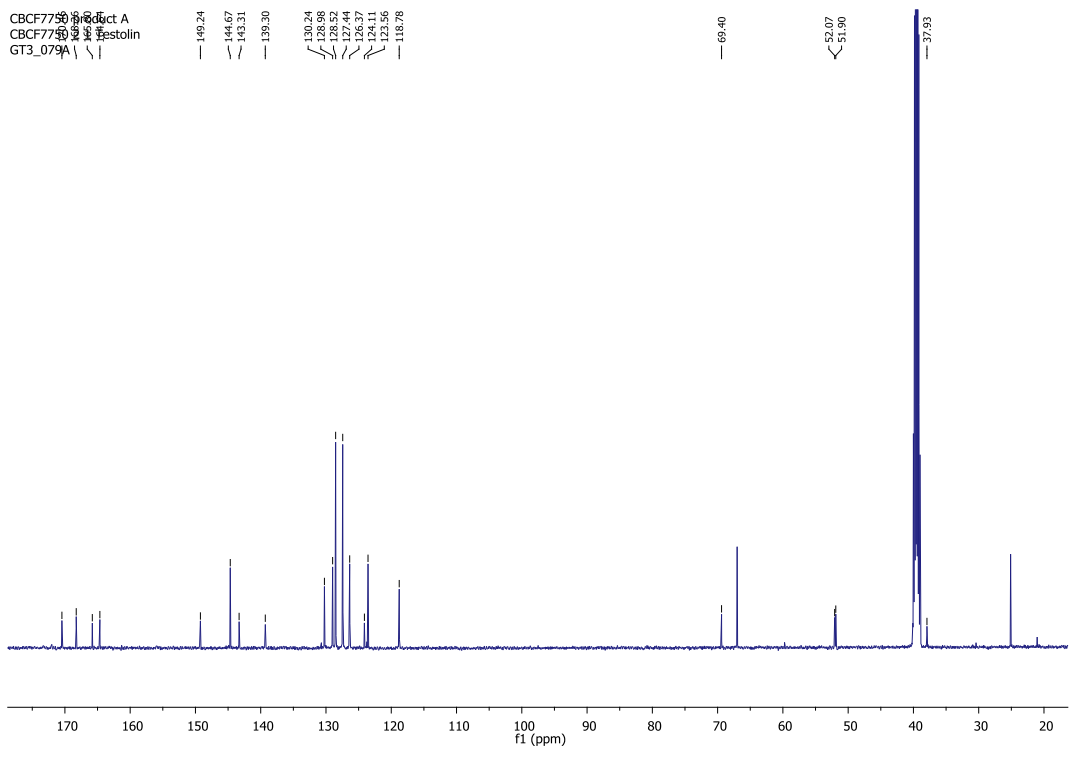


# Methyl (S)-4-(2-(4-nitrobenzamido)-4-oxo-4-(tritylamino)butanamido)benzoate

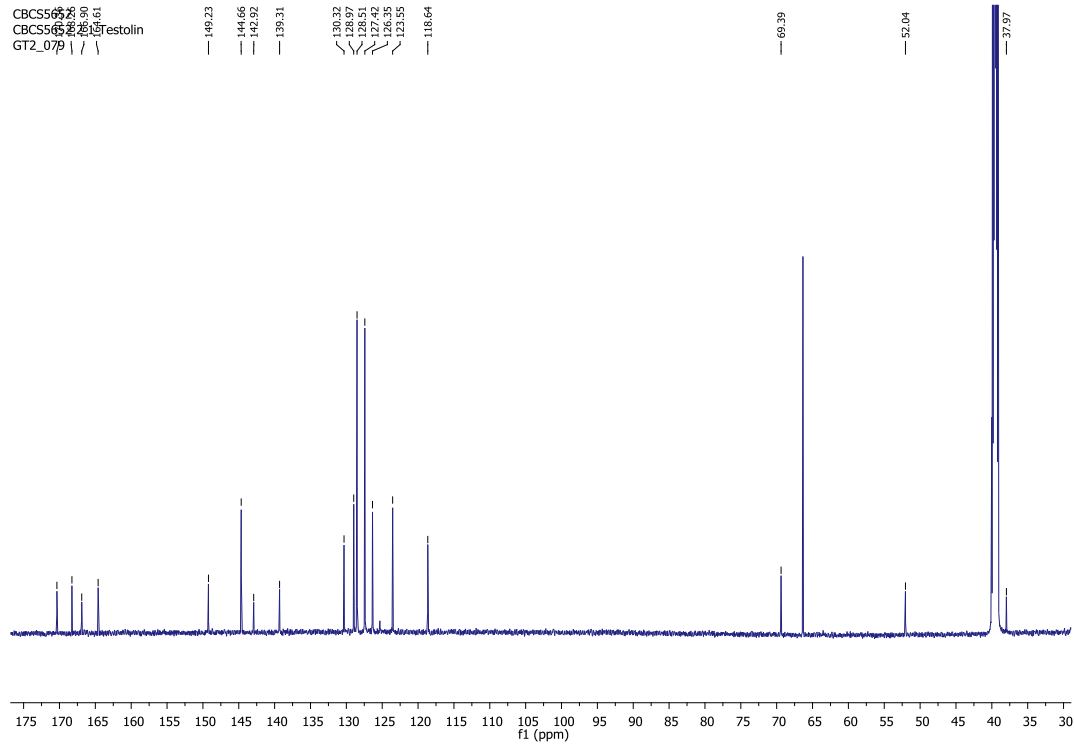
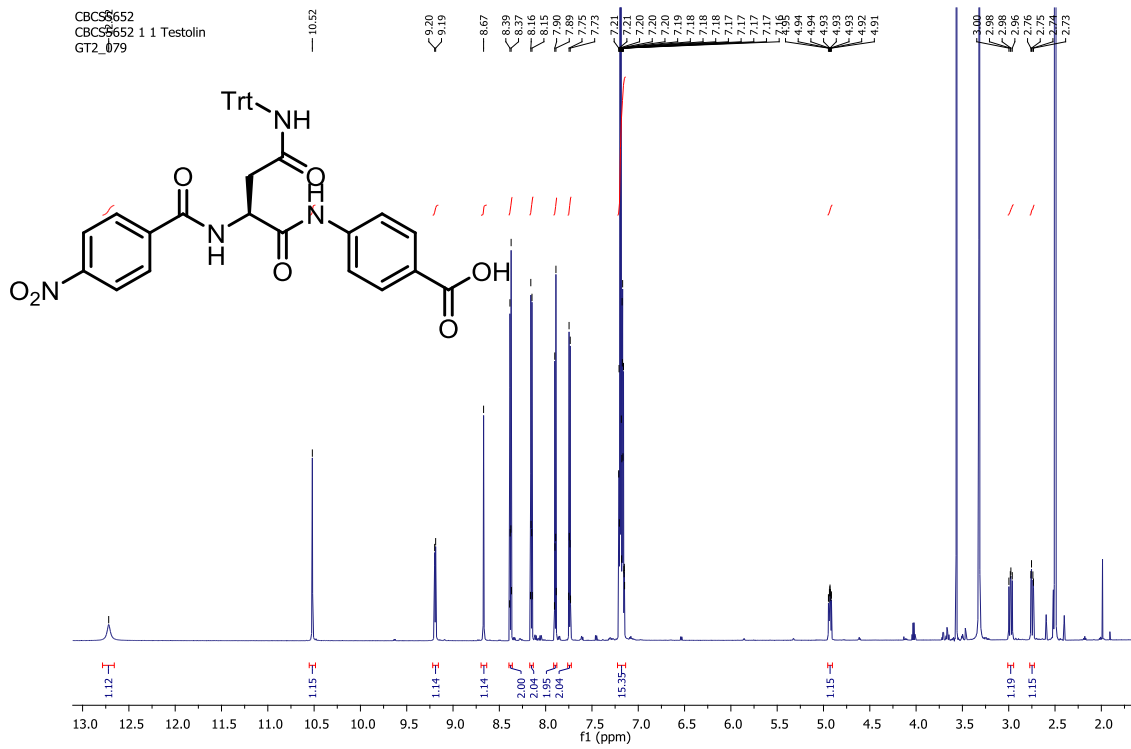
CBCF7750 produit A  
 CBCF7750 111 Testolin  
 GT3\_079A



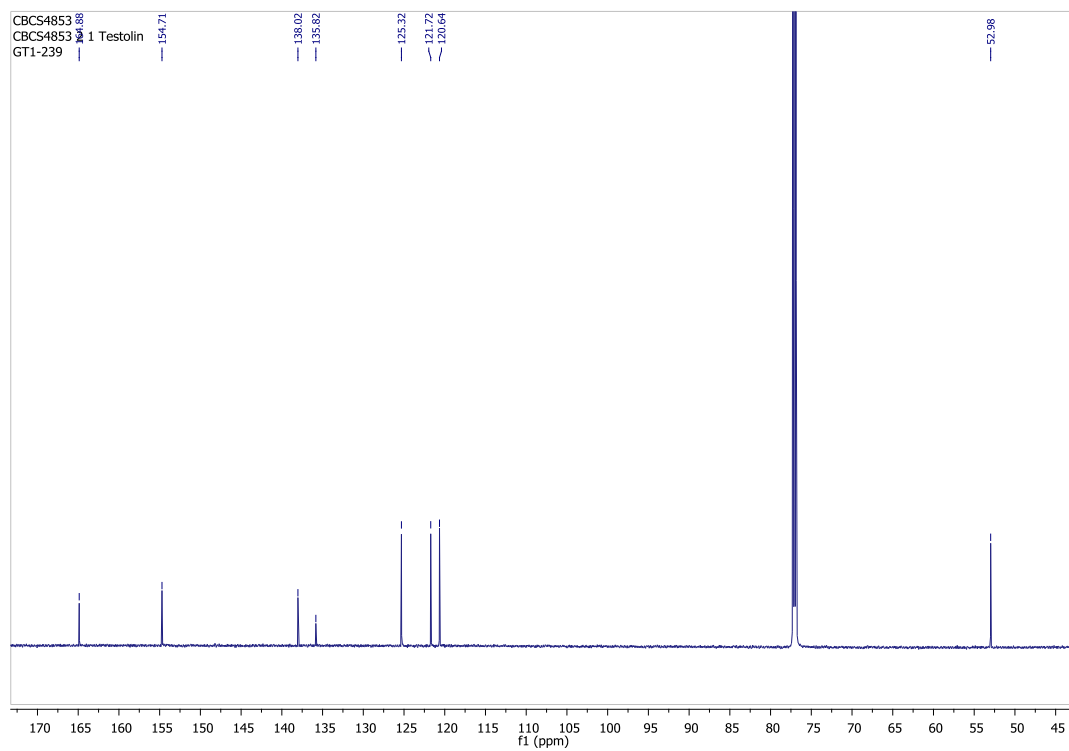
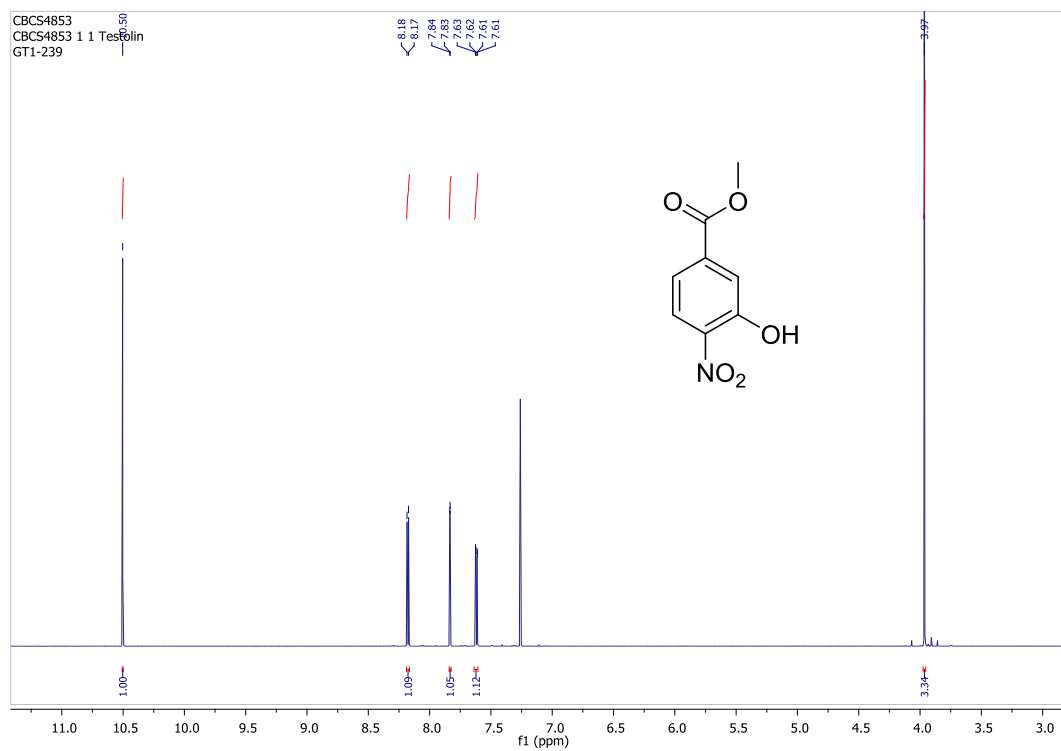
CBCF7750 produit A  
 CBCF7750 111 Testolin  
 GT3\_079A



**(S)-4-(2-(4-Nitrobenzamido)-4-oxo-4-(tritylamino)butanamido)benzoic acid**

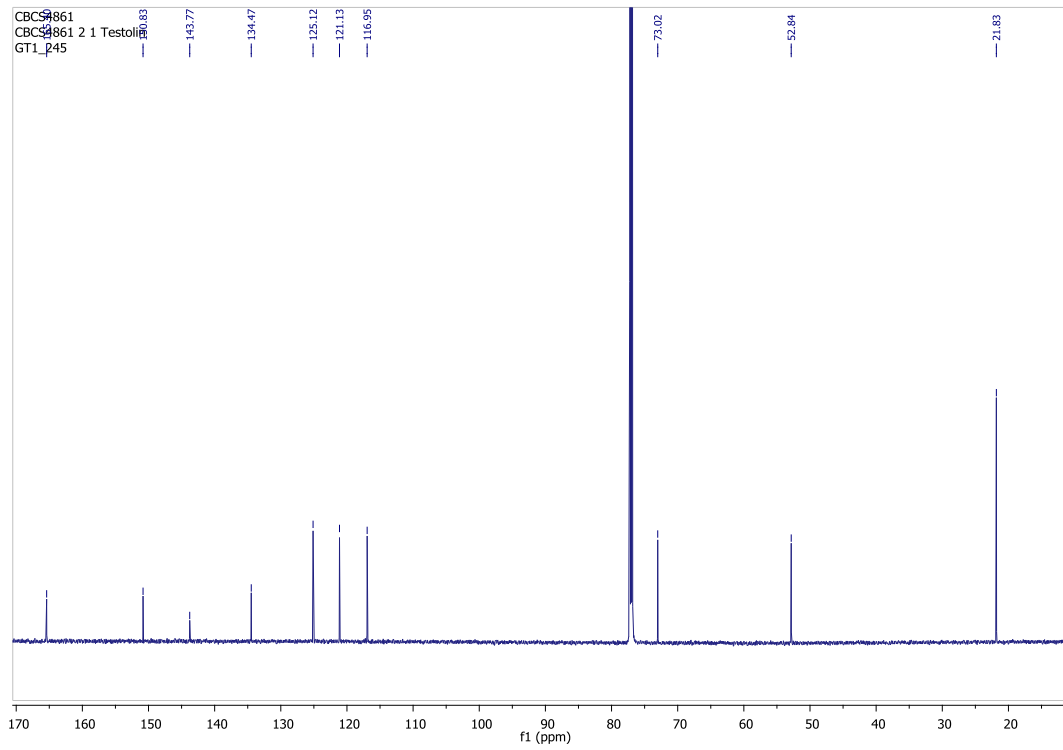
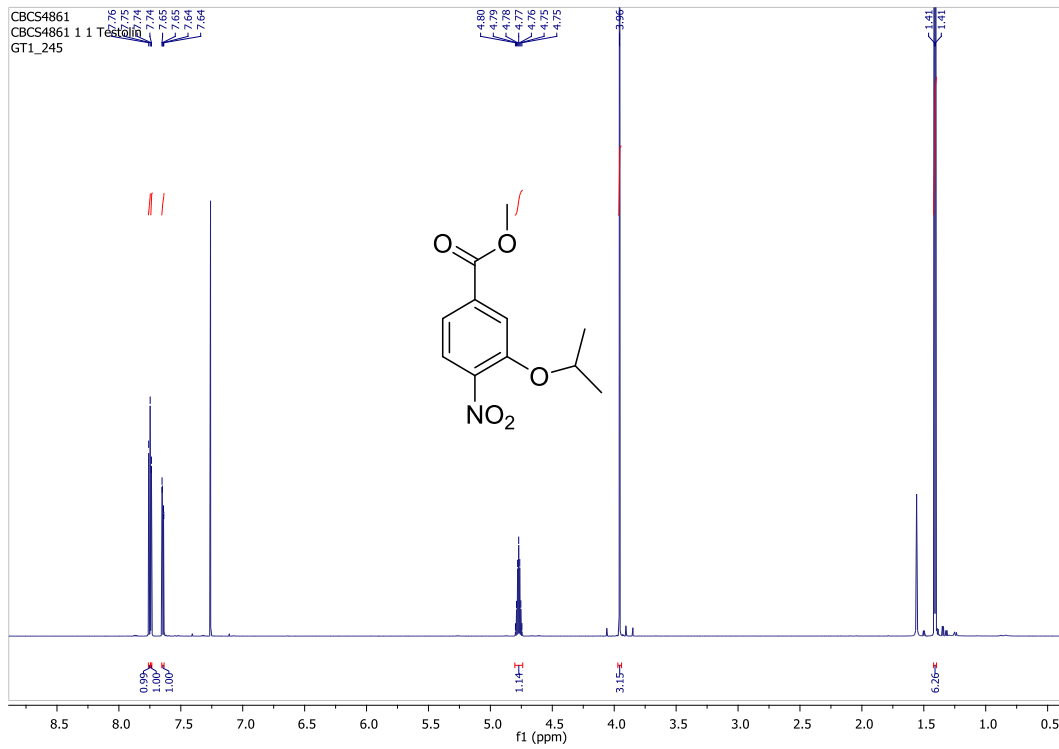


# Methyl 3-hydroxy-4-nitrobenzoate

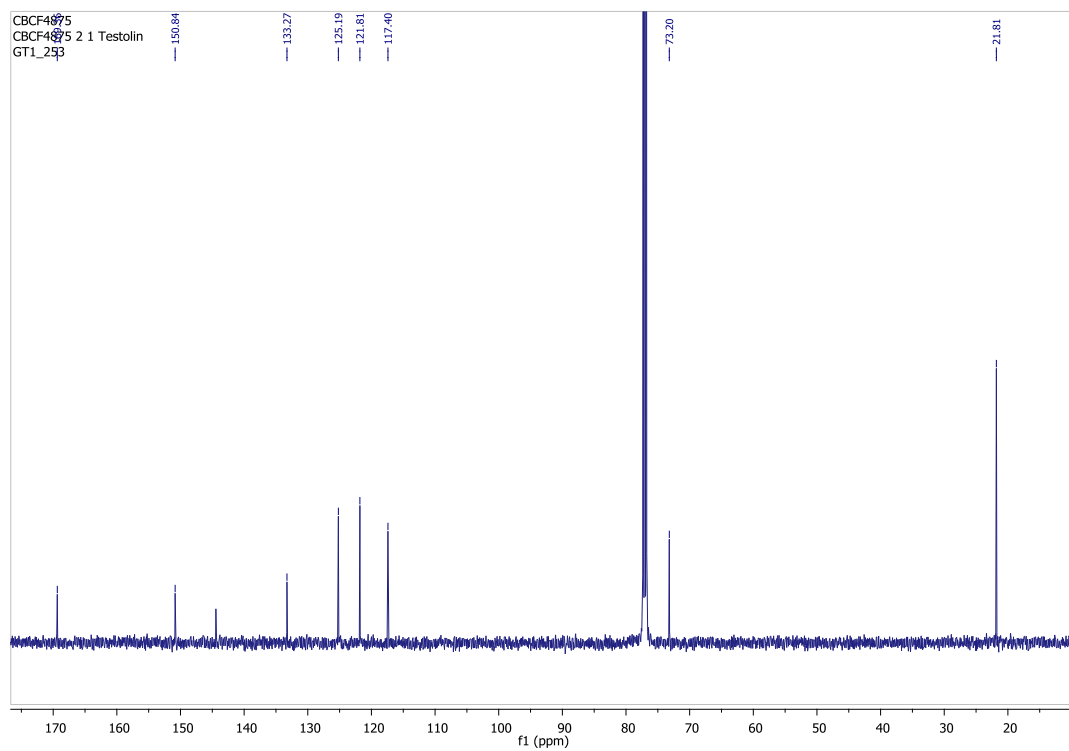
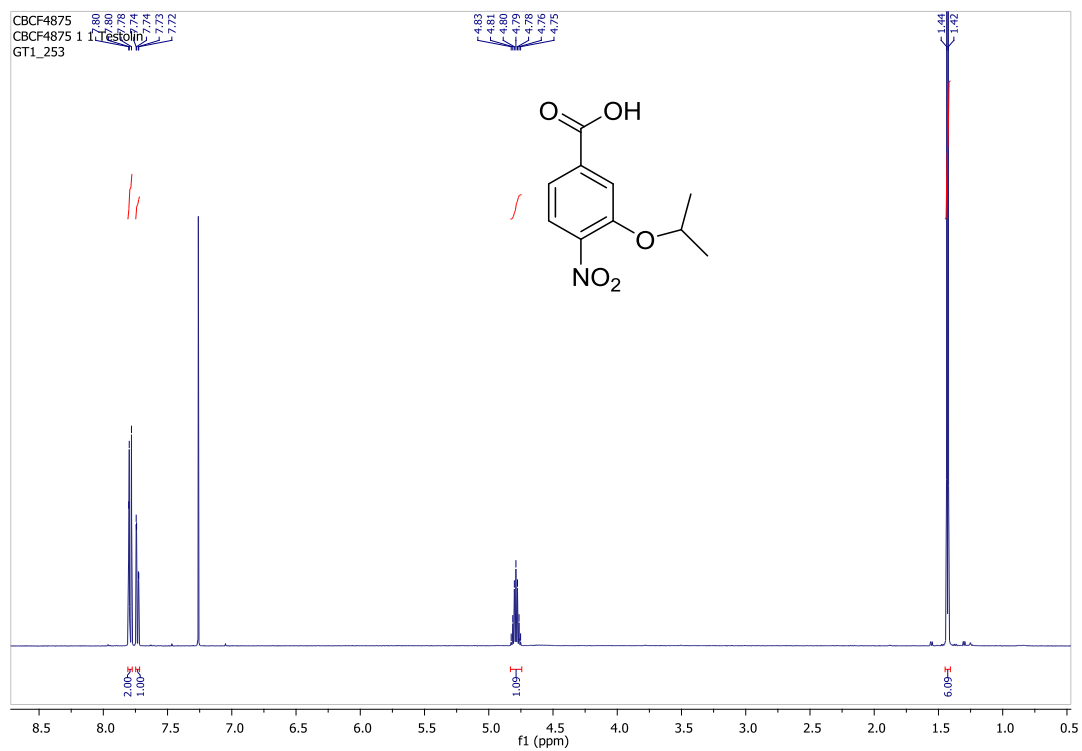


Methyl

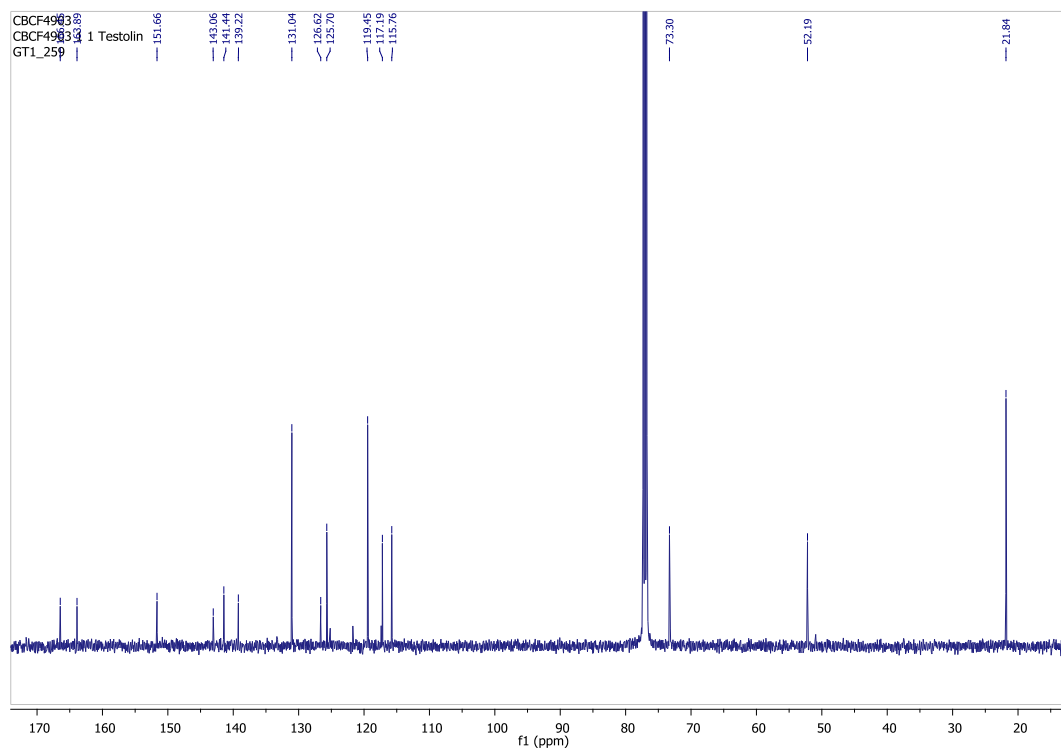
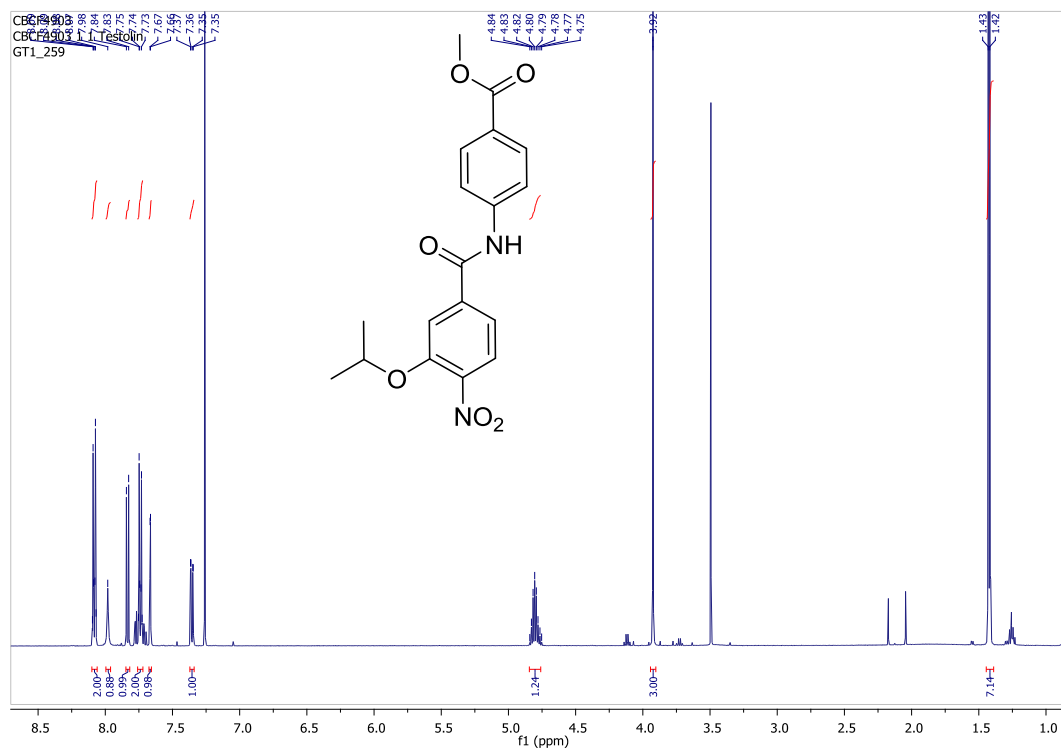
3-isopropoxy-4-nitrobenzoate



### 3-Isopropoxy-4-nitrobenzoic acid

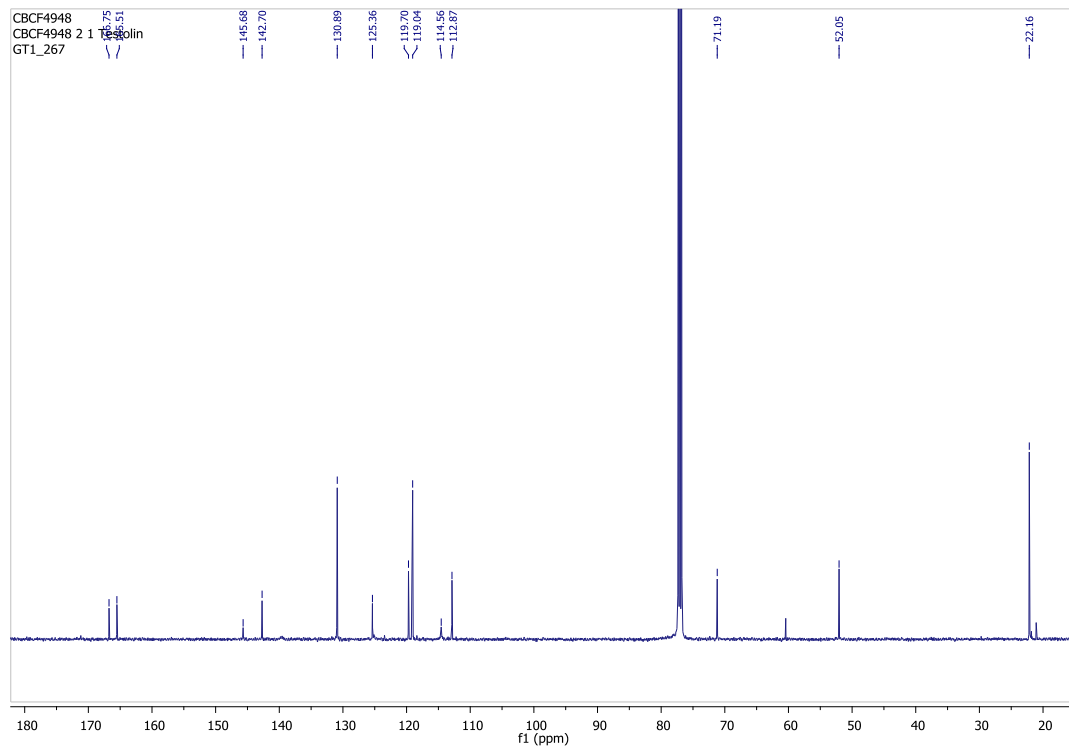
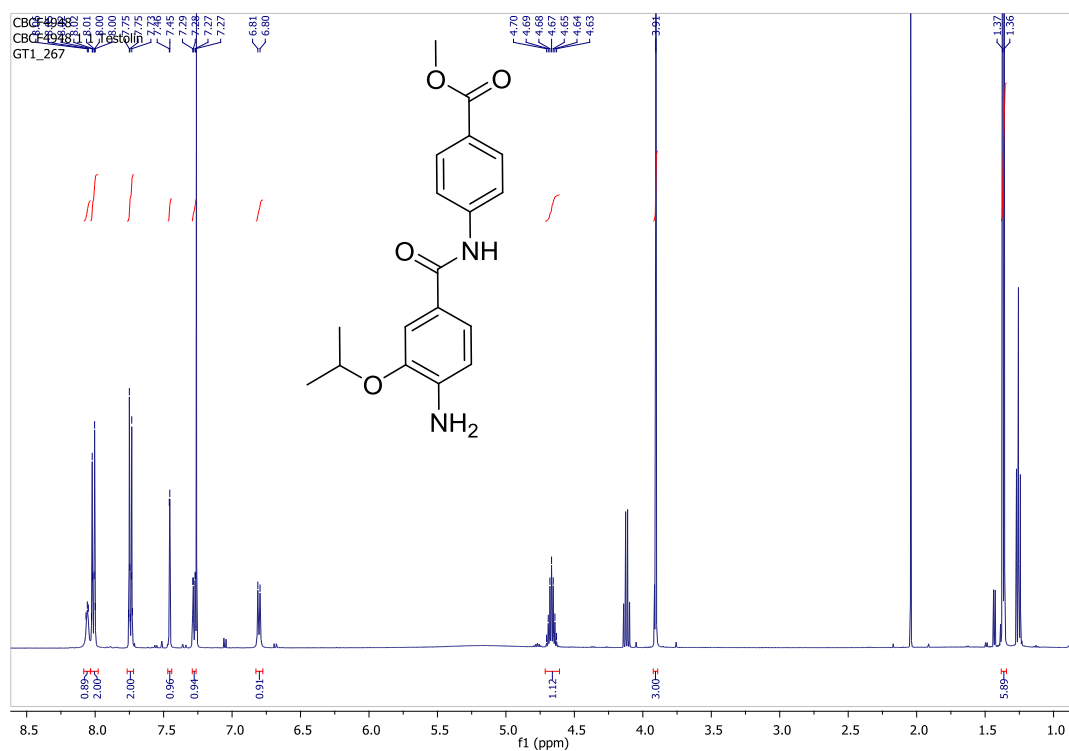


# Methyl 4-(3-isopropoxy-4-nitrobenzamido)benzoate





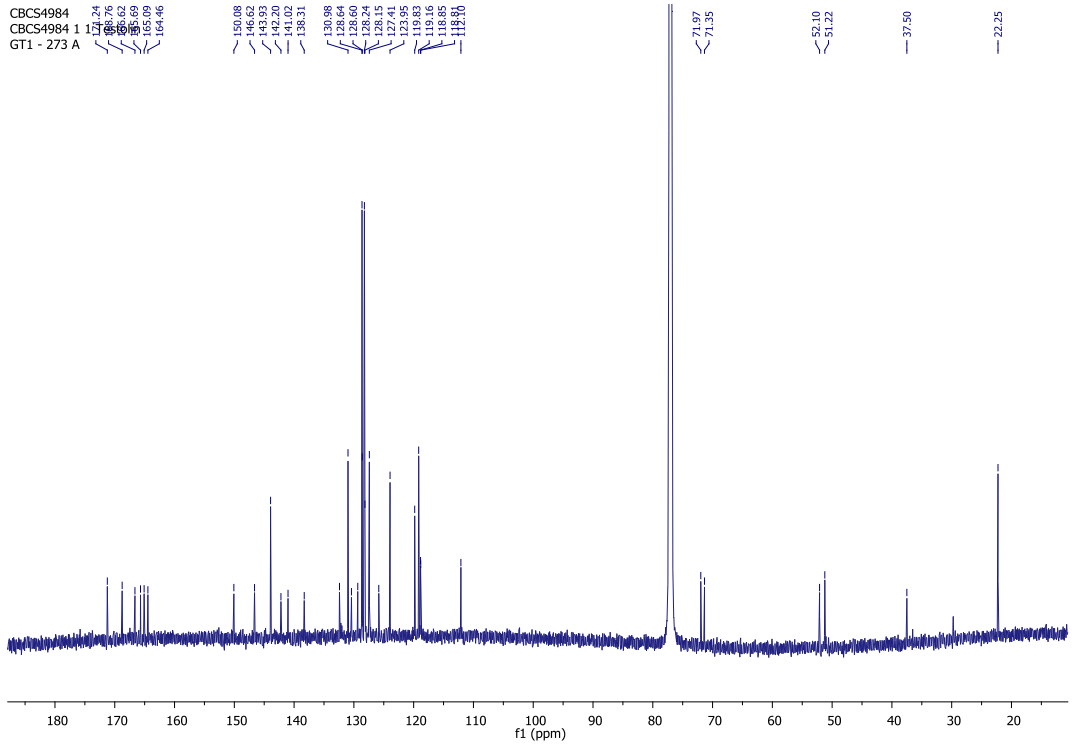
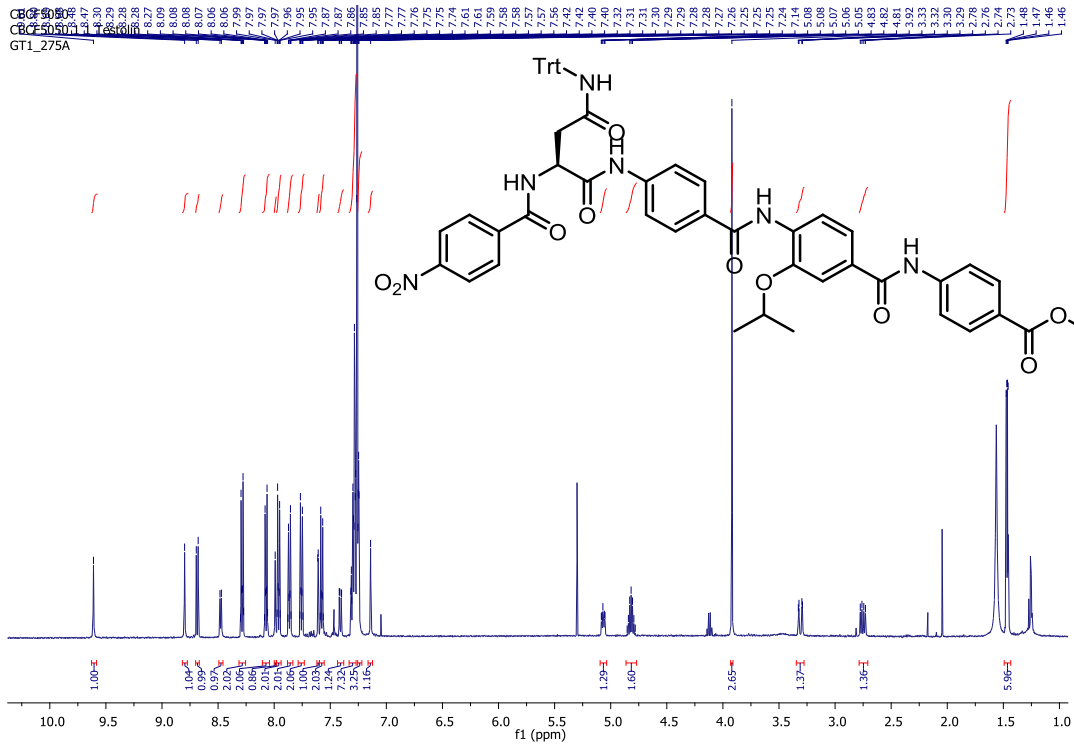
# Methyl 4-(4-amino-3-isopropoxybenzamido)benzoate



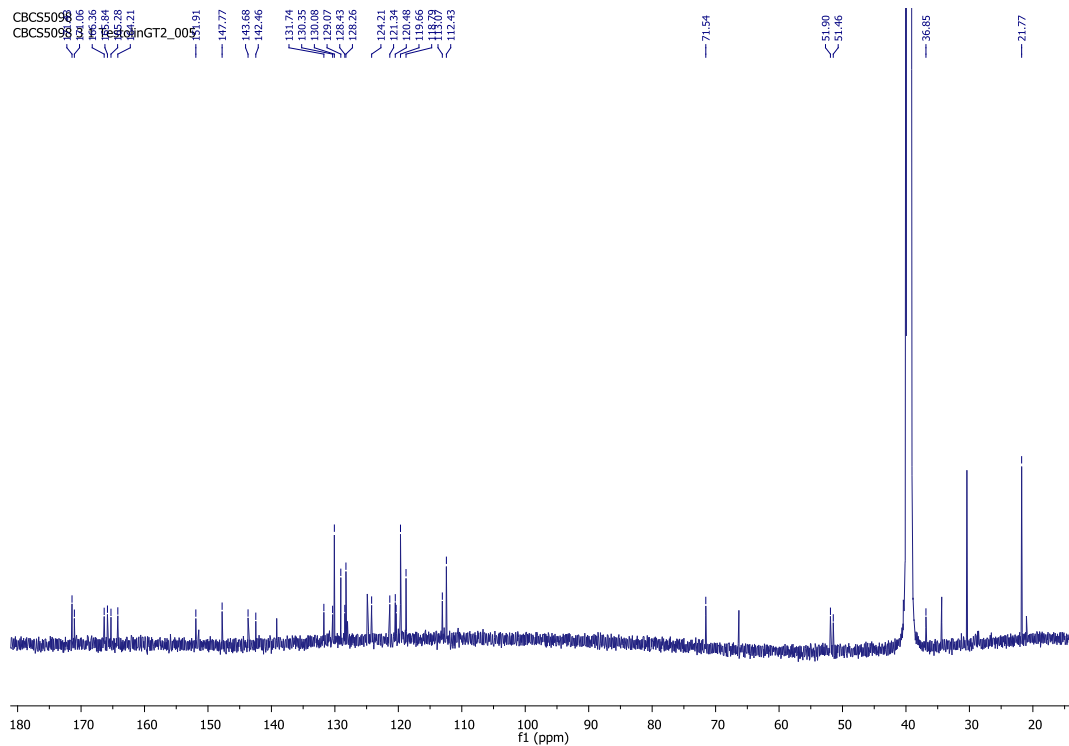
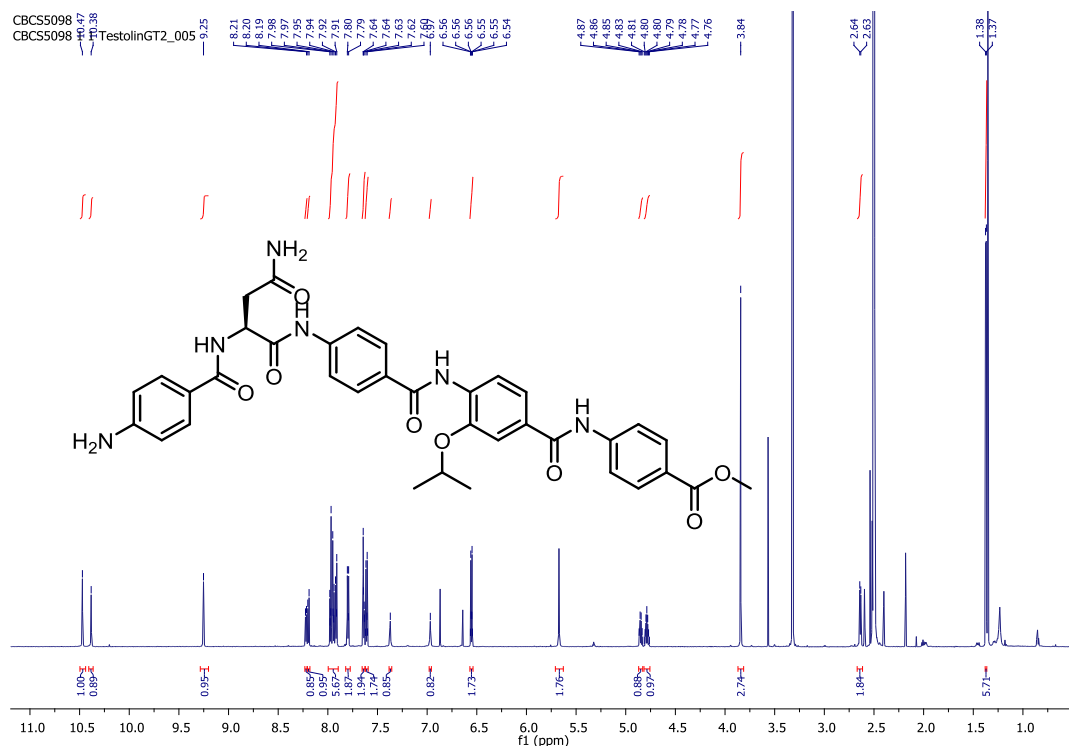
Methyl

(S)-4-(3-isopropoxy-4-(2-(4-nitrobenzamido)-4-oxo-4-

(tritylamino)butanamido)benzamido)benzamido)benzoate

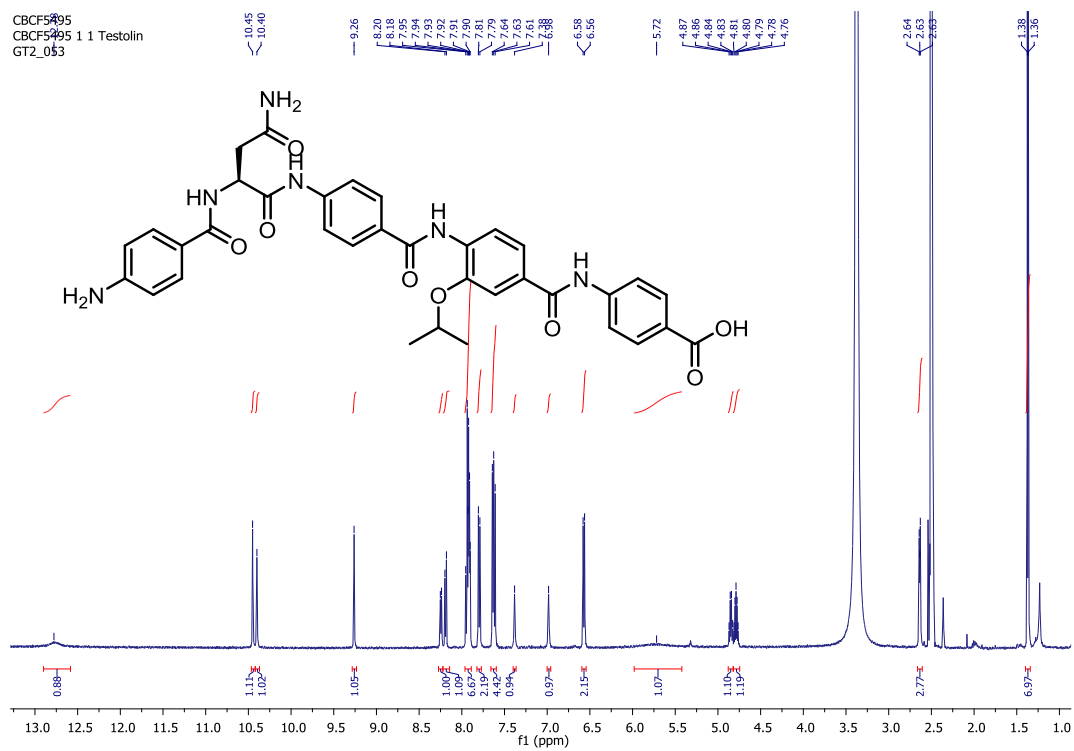


**Methyl (S)-4-(4-(4-(4-amino-2-(4-aminobenzamido)-4-oxobutanamido)benzamido)-3-isopropoxybenzamido)benzoate**

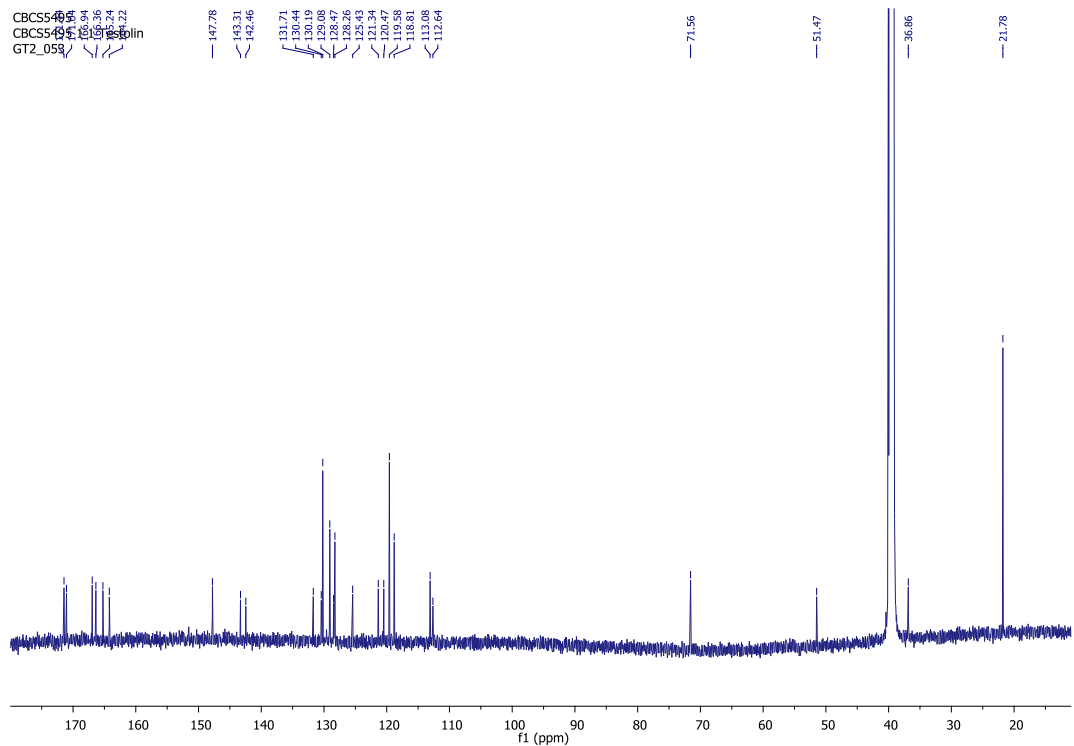


**(S)-4-(4-(4-(4-Amino-2-(4-aminobenzamido)-4-oxobutanamido)benzamido)-3-isopropoxybenzamido)benzoic acid**

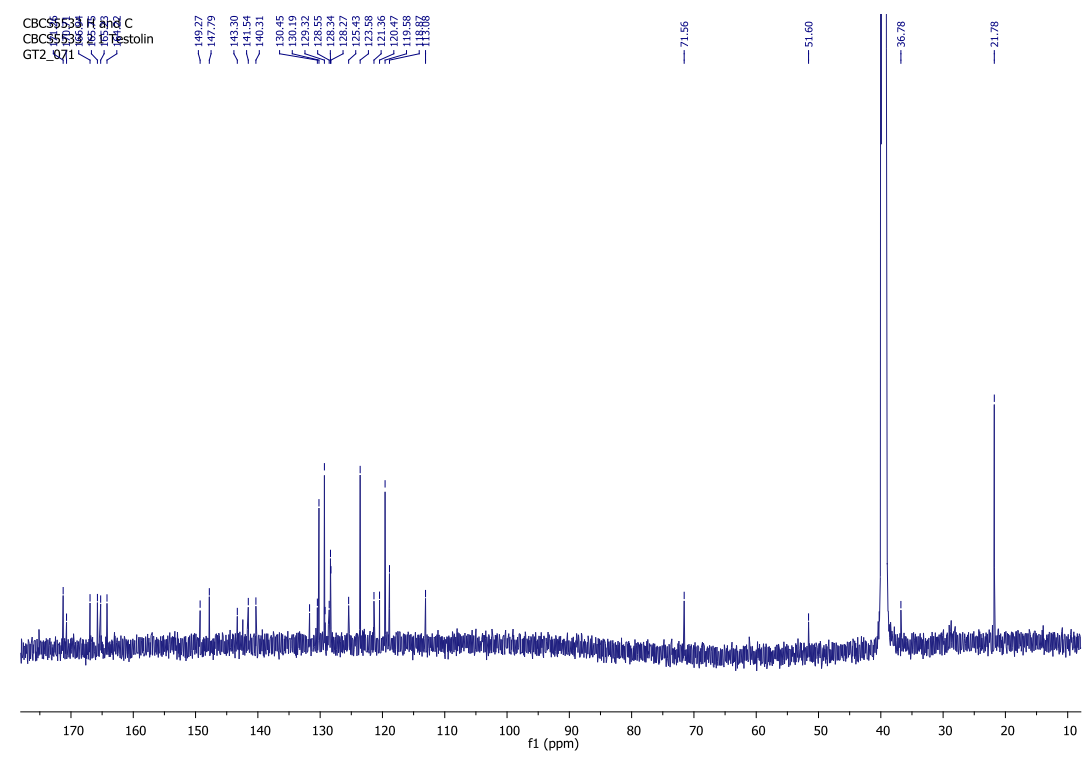
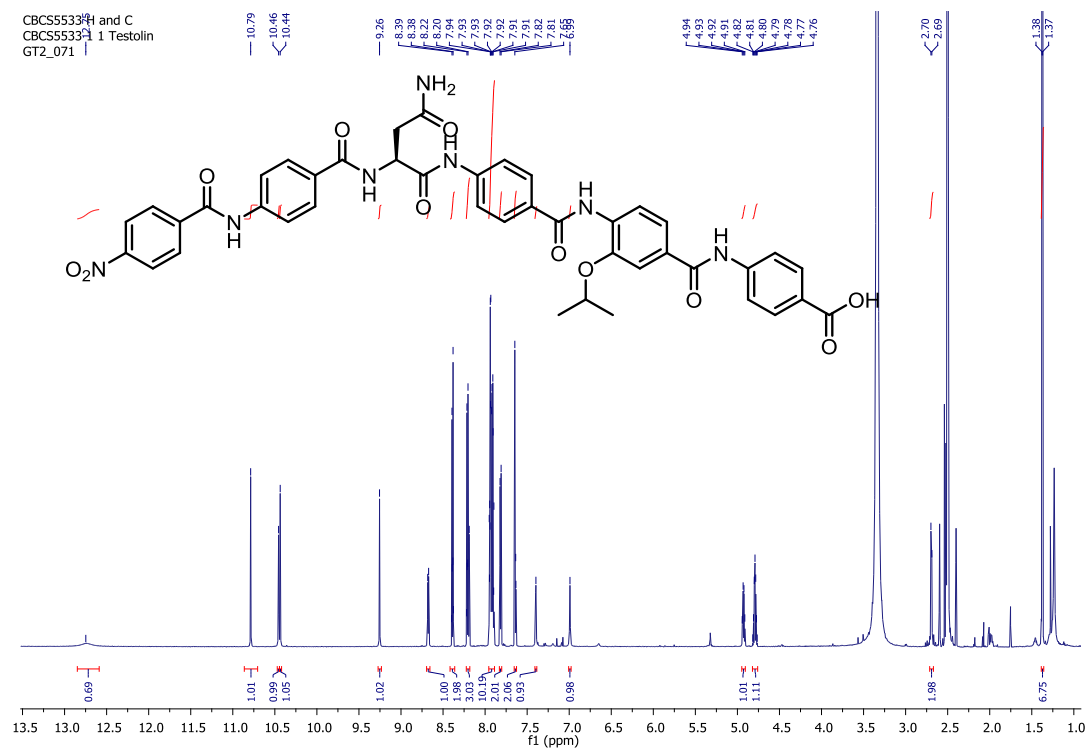
CBCF5495  
 CBCF5495 1 1 Testolin  
 GT2\_053



CBCS5495  
 CBCS5495 1 1 Testolin  
 GT2\_058

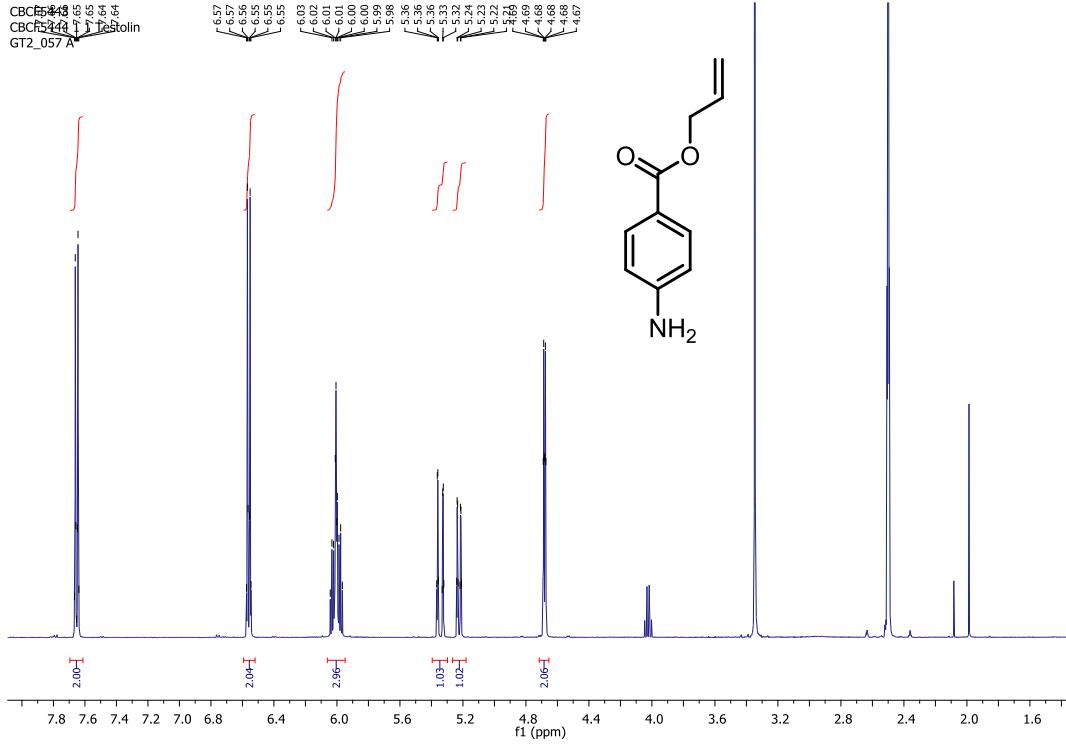


**(S)-4-(4-(4-(4-Amino-2-(4-(4-nitrobenzamido)benzamido)-4-oxobutanamido)benzamido)-3-isopropoxybenzamido)benzoic acid**

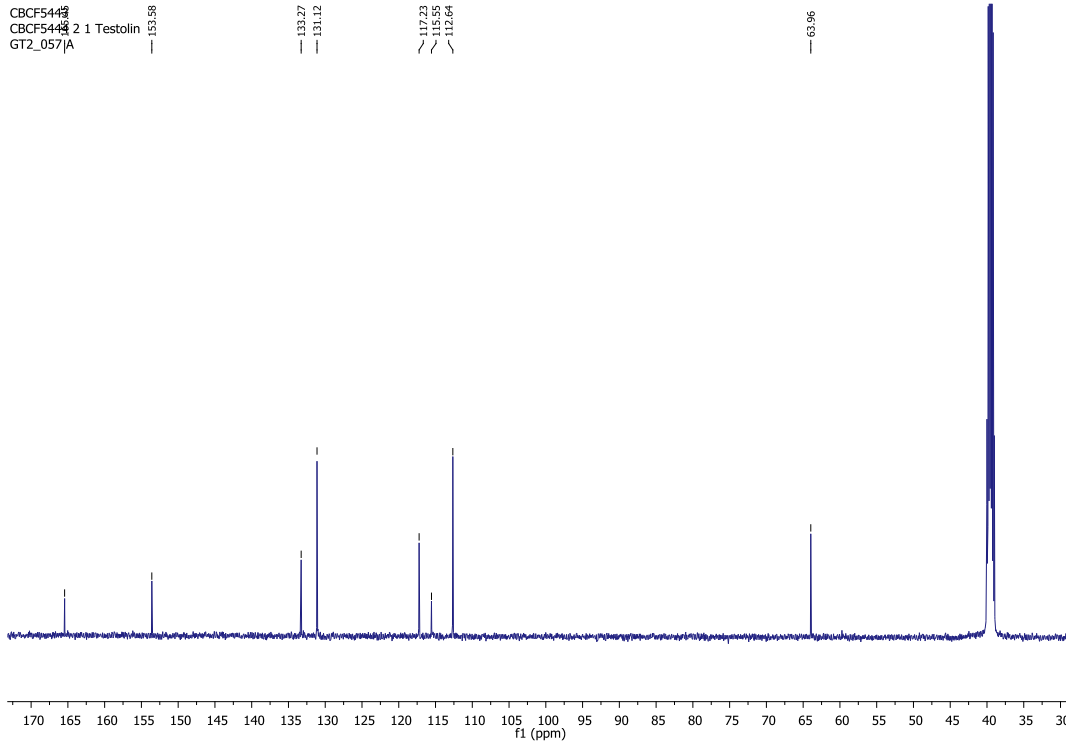


# Allyl 4-aminobenzoate

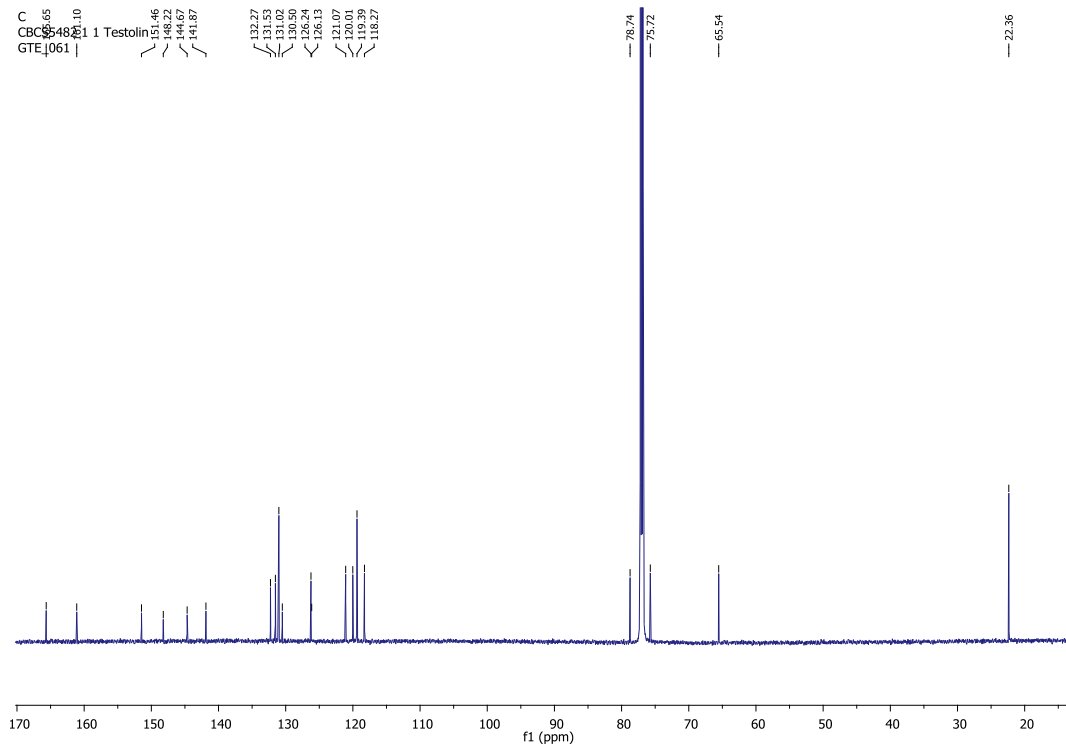
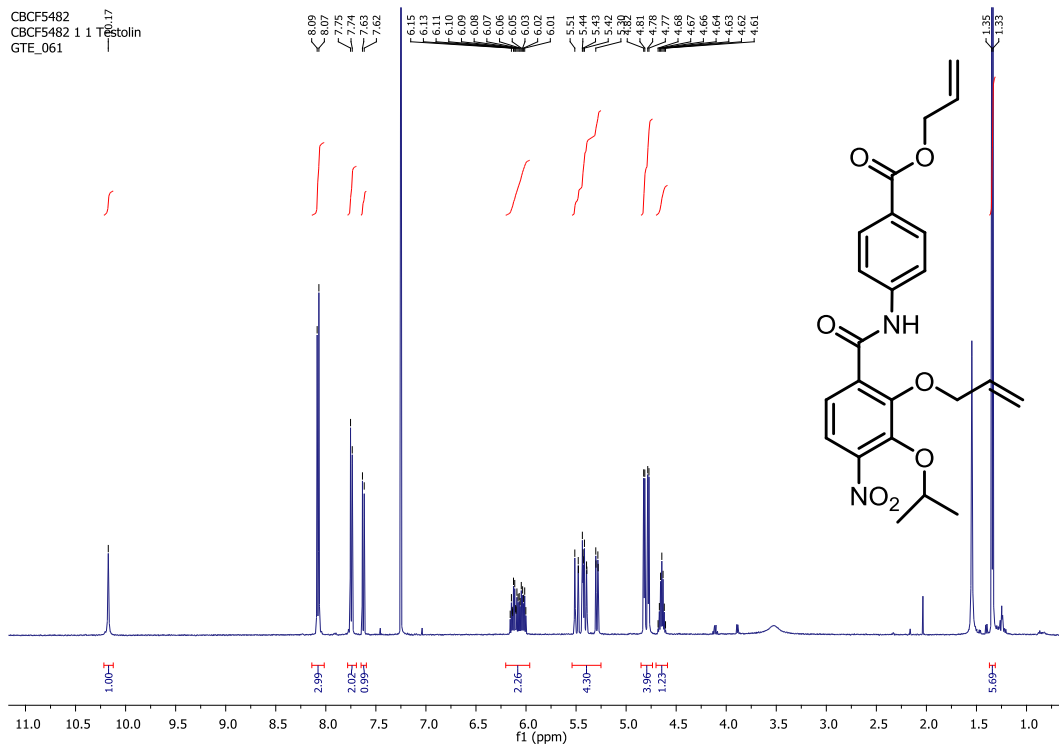
CBCF5443  
 CBCF5443 2.1 Testolin  
 GT2\_057 A



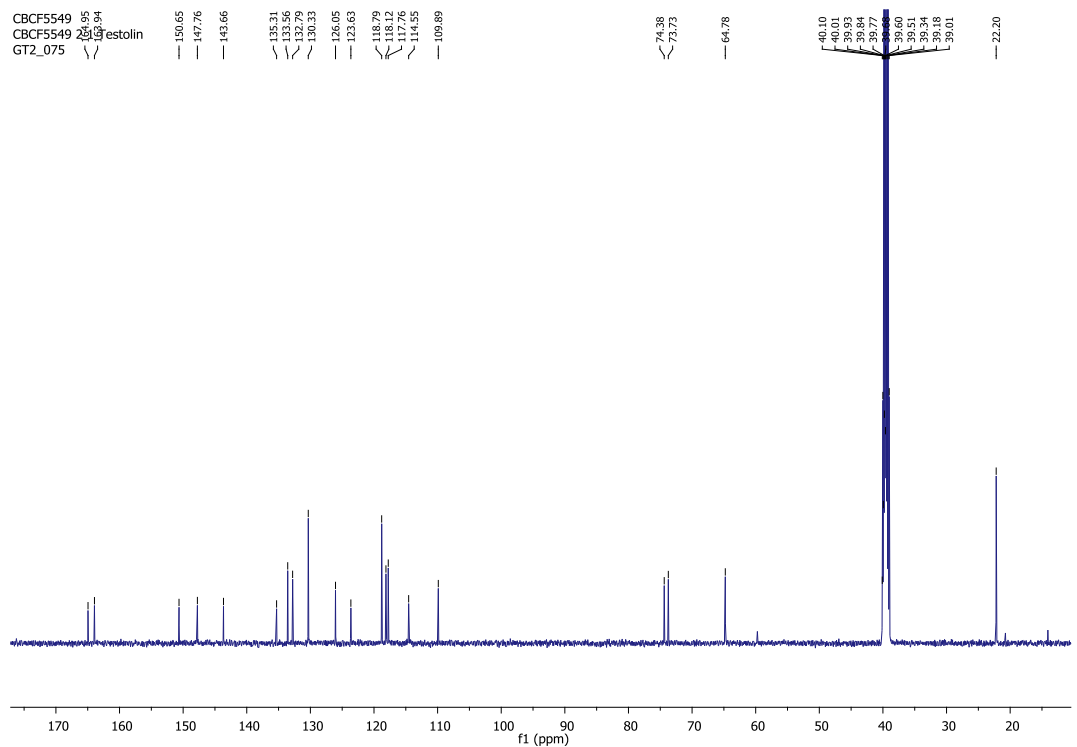
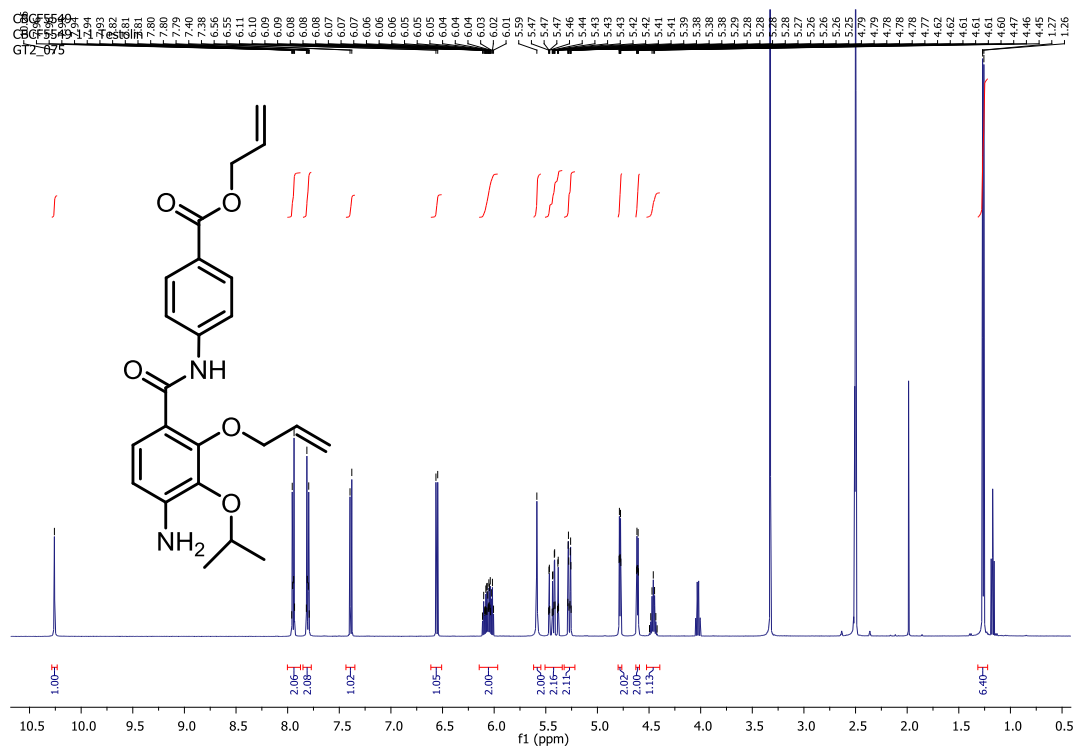
CBCF5443  
 CBCF5443 2.1 Testolin  
 GT2\_057 A



# Allyl 4-(2-(allyloxy)-3-isopropoxy-4-nitrobenzamido)benzoate



# Allyl 4-(2-(allyloxy)-4-amino-3-isopropoxybenzamido)benzoate



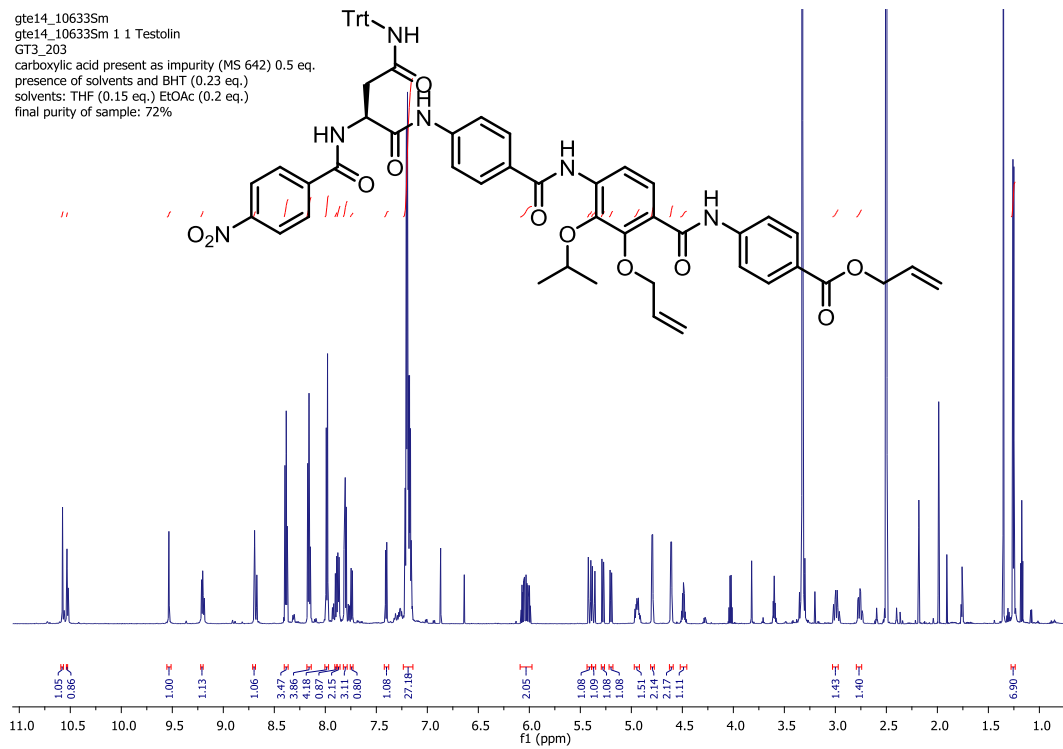


Allyl

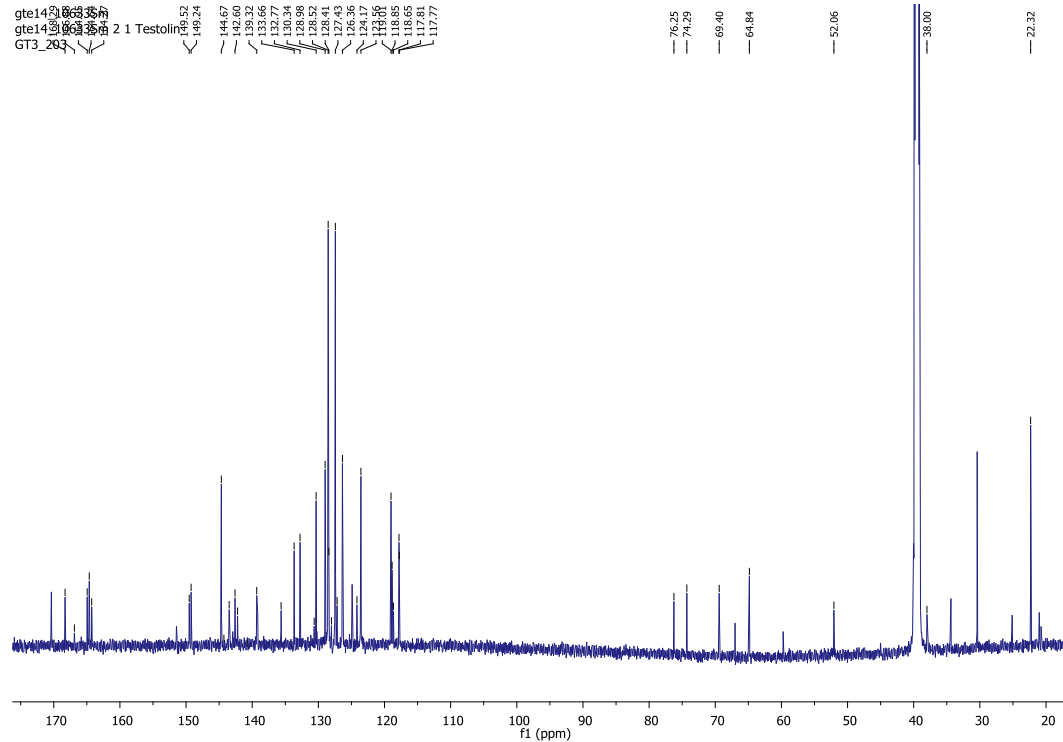
(S)-4-(2-(allyloxy)-3-isopropoxy-4-(4-(2-(4-nitrobenzamido)-4-oxo-4-

(tritylamino)butanamido)benzamido)benzamido)benzoate

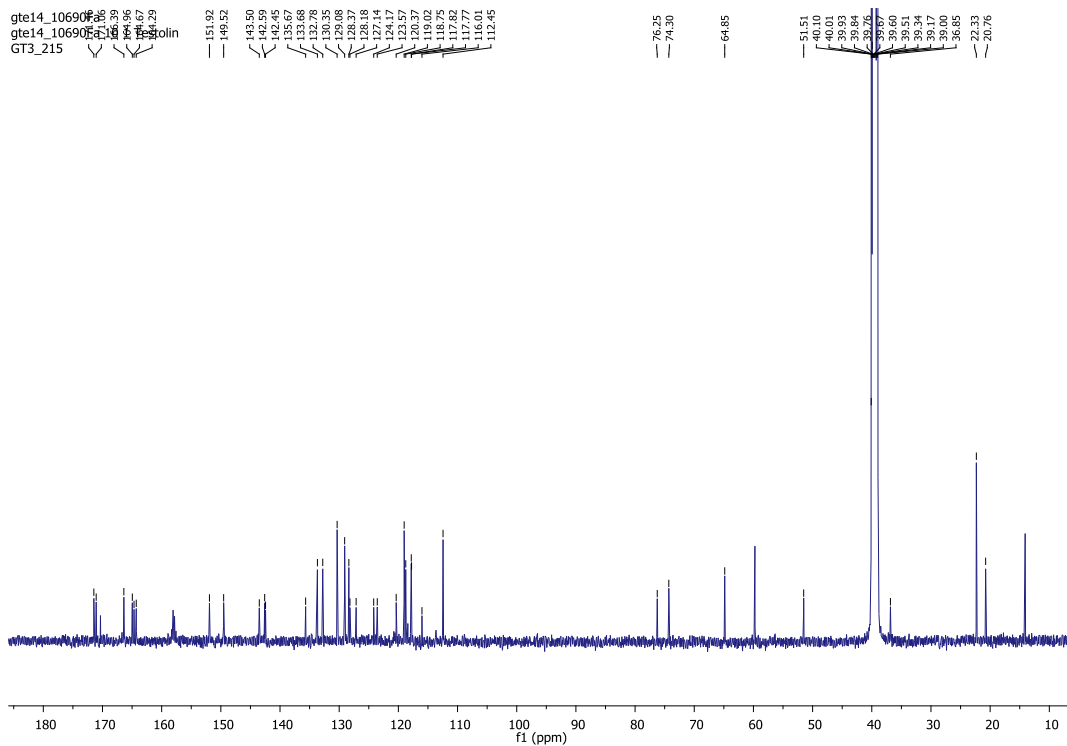
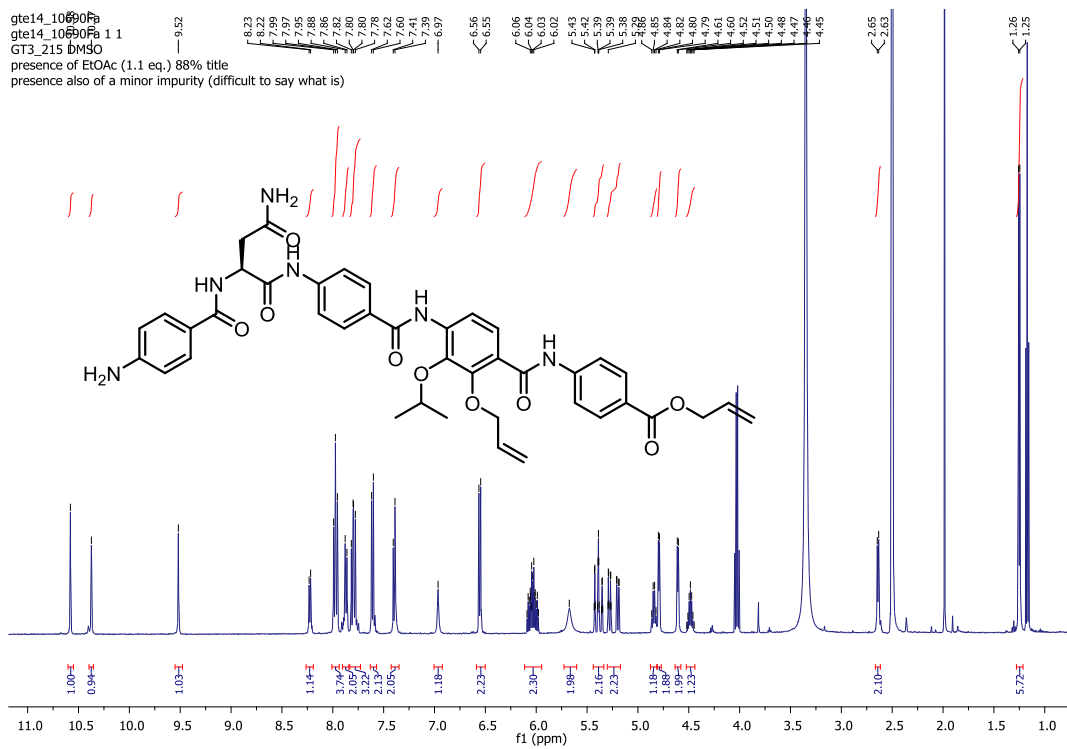
gte14\_10633Sm  
gte14\_10633Sm 1 1 Testolin  
GT3\_203  
carboxylic acid present as impurity (MS 642) 0.5 eq.  
presence of solvents and BHT (0.23 eq.)  
solvents: THF (0.15 eq.) EtOAc (0.2 eq.)  
final purity of sample: 72%



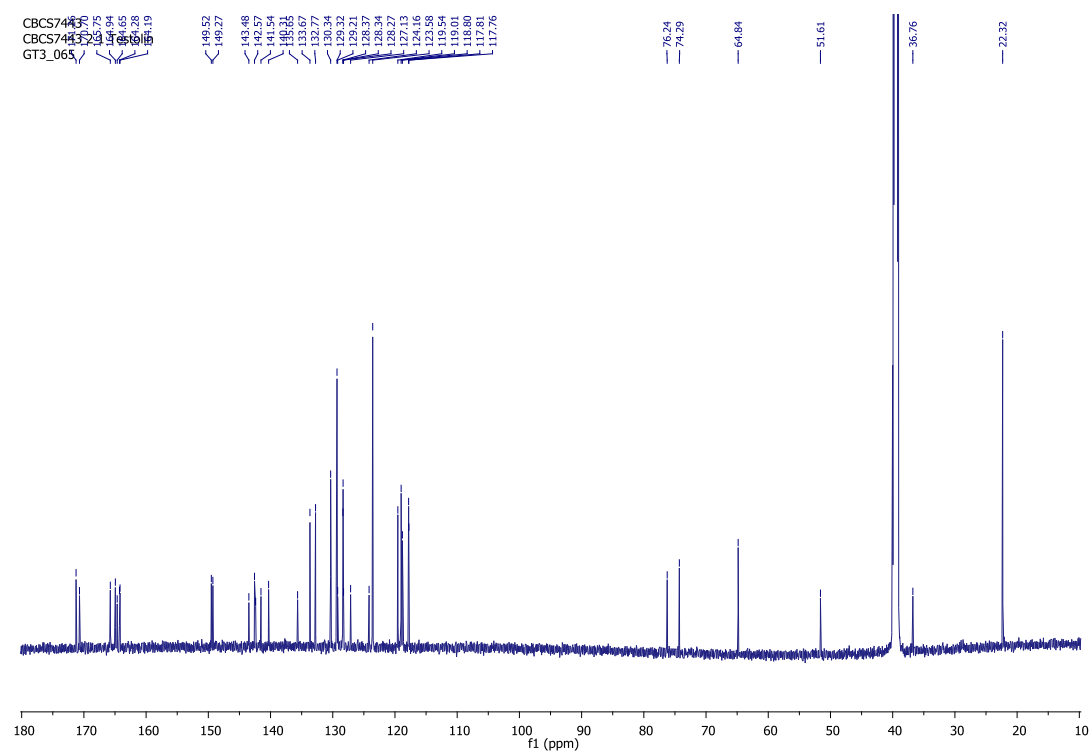
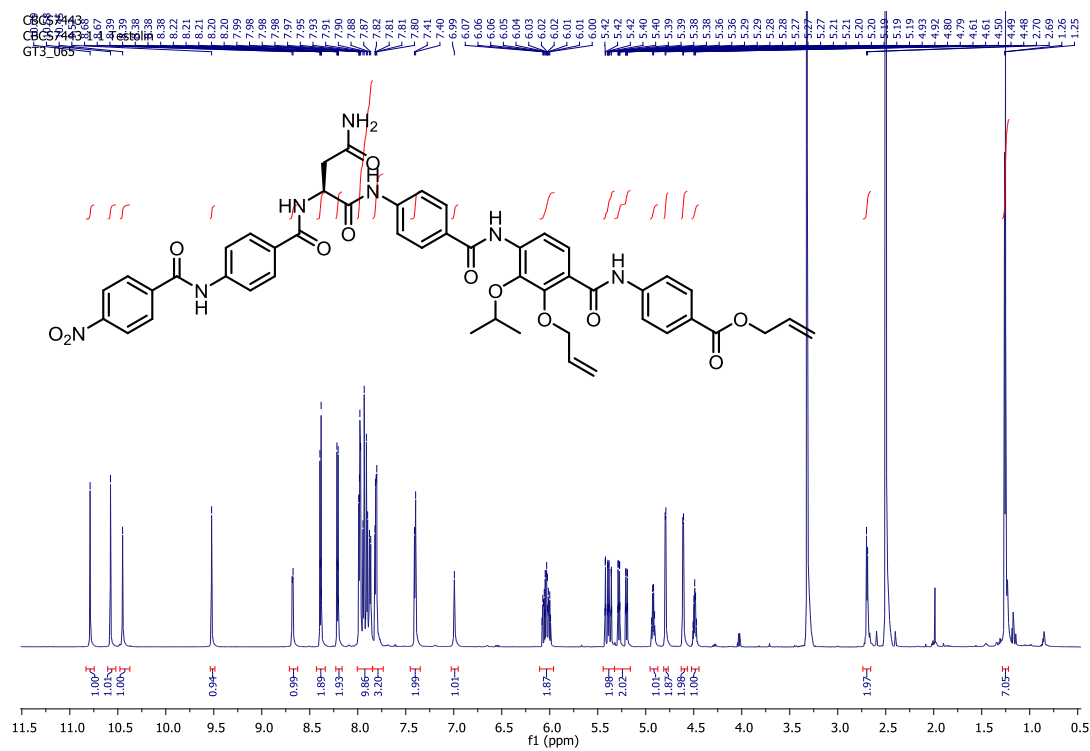
gte14\_10633Sm  
gte14\_10633Sm 2 1 Testolin  
GT3\_203



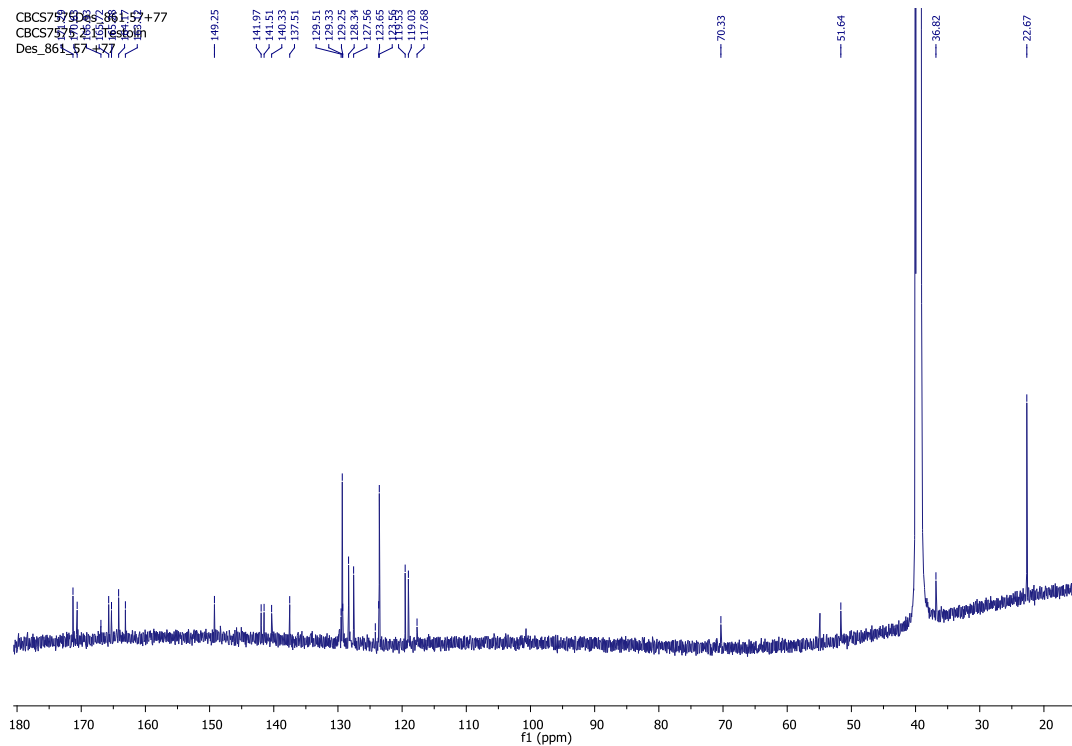
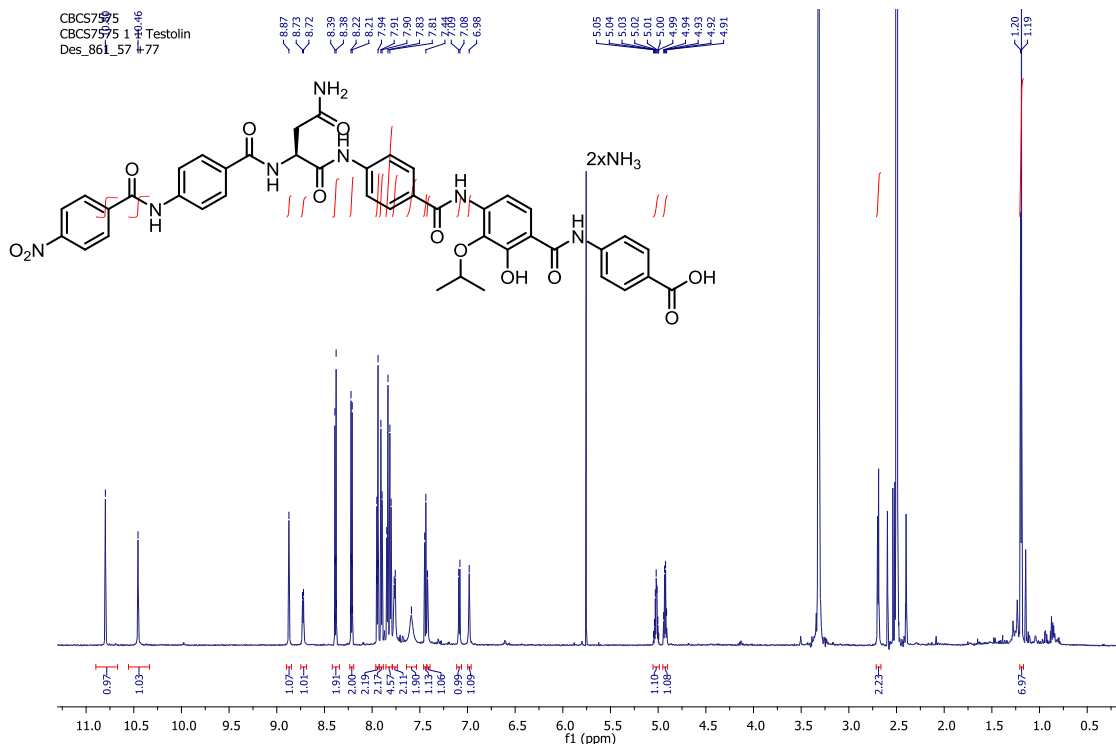
# Allyl (S)-4-(2-(allyloxy)-4-(4-(4-amino-2-(4-aminobenzamido)-4-oxobutanamido)benzamido)-3-isopropoxybenzamido)benzoate



**Allyl (S)-4-(2-(allyloxy)-4-(4-(4-amino-2-(4-(4-nitrobenzamido)benzamido)-4-oxobutanamido)benzamido)-3-isopropoxybenzamido)benzoate**

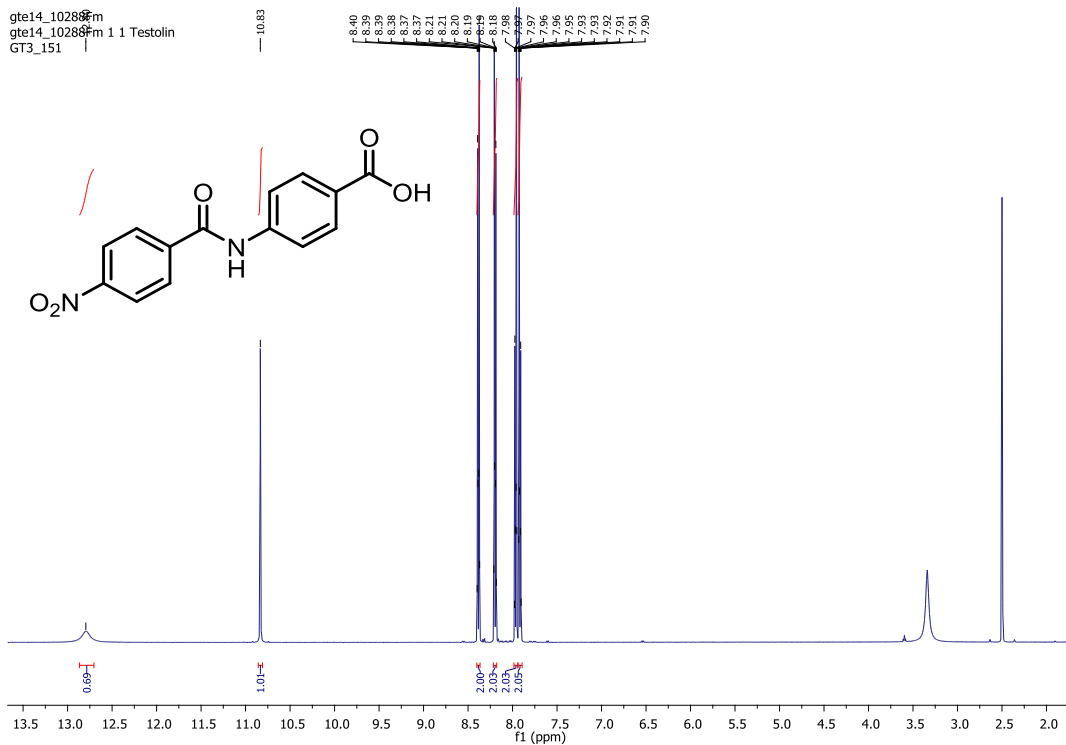


**(S)-4-(4-(4-(4-Amino-2-(4-(4-nitrobenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

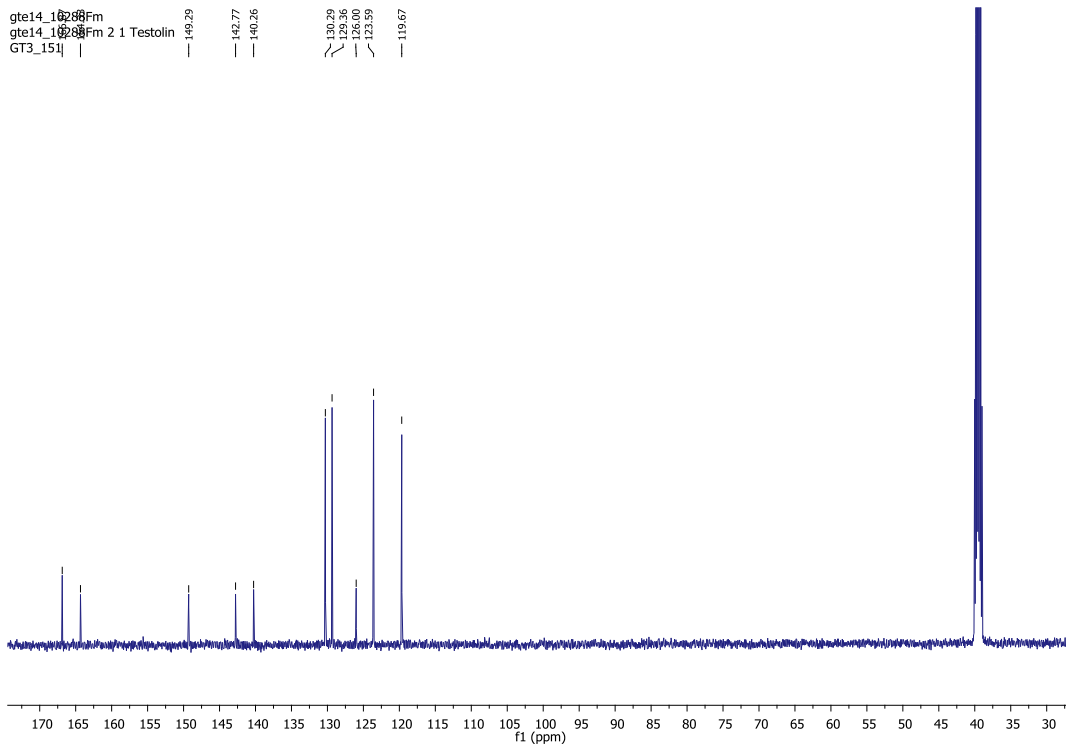


# 4-(4-Nitrobenzamido)benzoic acid

gte14\_10288Fm  
gte14\_10288Fm 1 1 Testolin  
GT3\_151

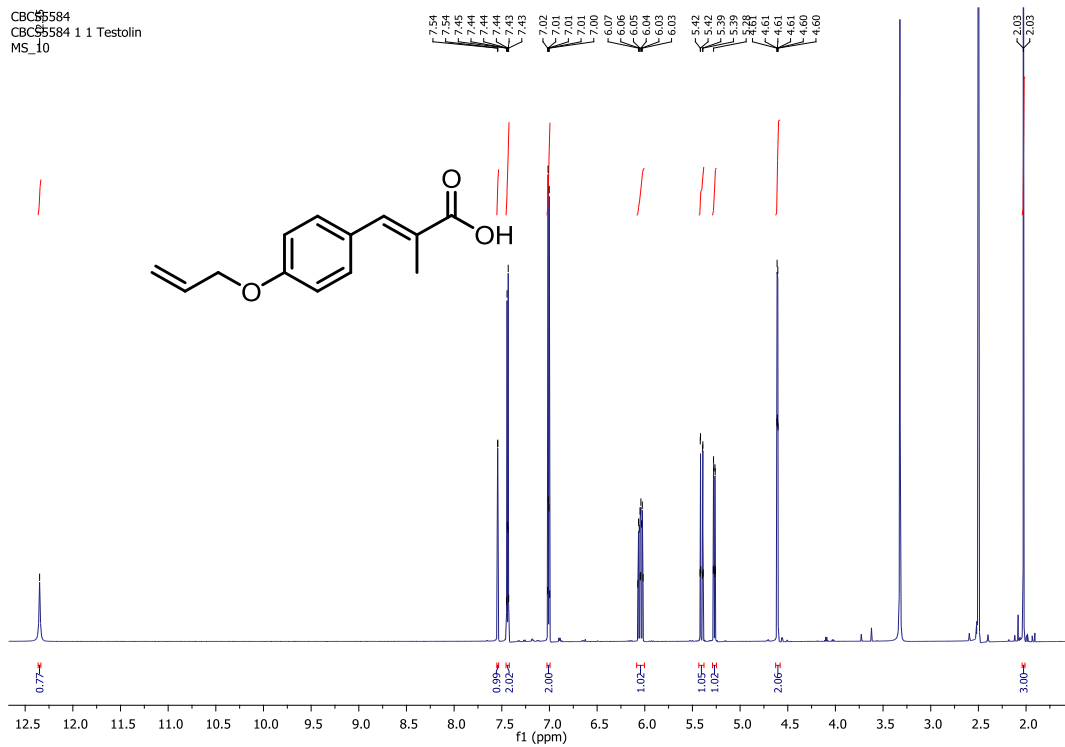


gte14\_10288Fm  
gte14\_10288Fm 2 1 Testolin  
GT3\_151

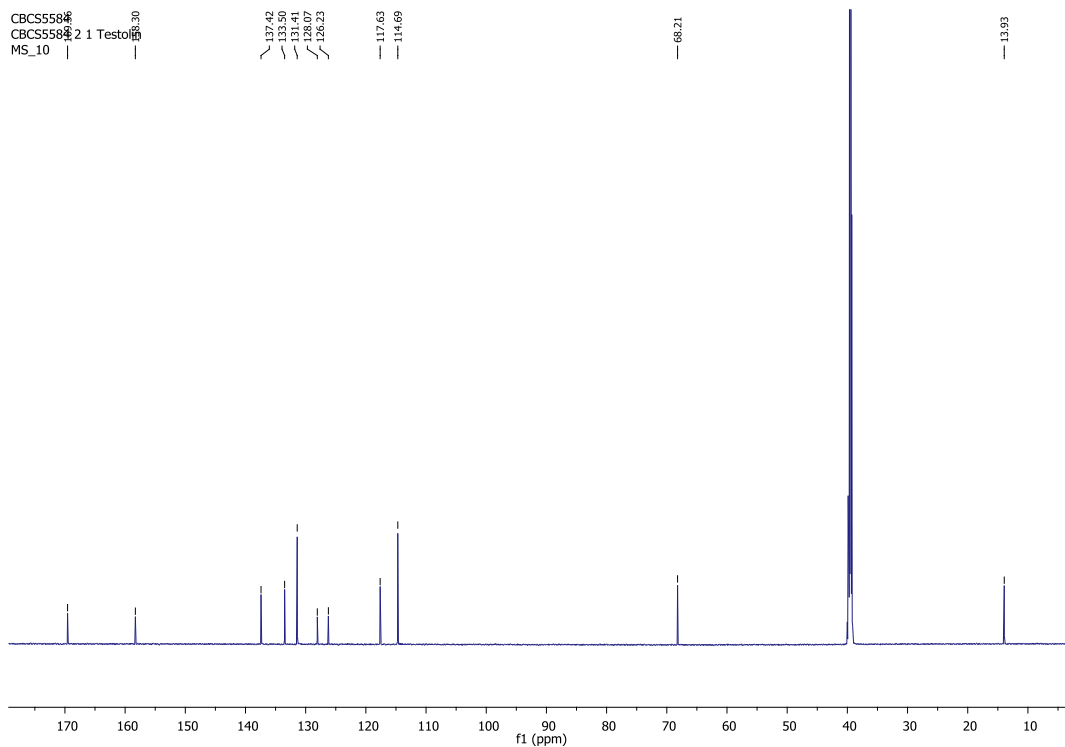


# (E)-3-(4-(Allyloxy)phenyl)-2-methylacrylic acid

CBCS5584  
CBCS5584 1 1 Testol  
MS\_10

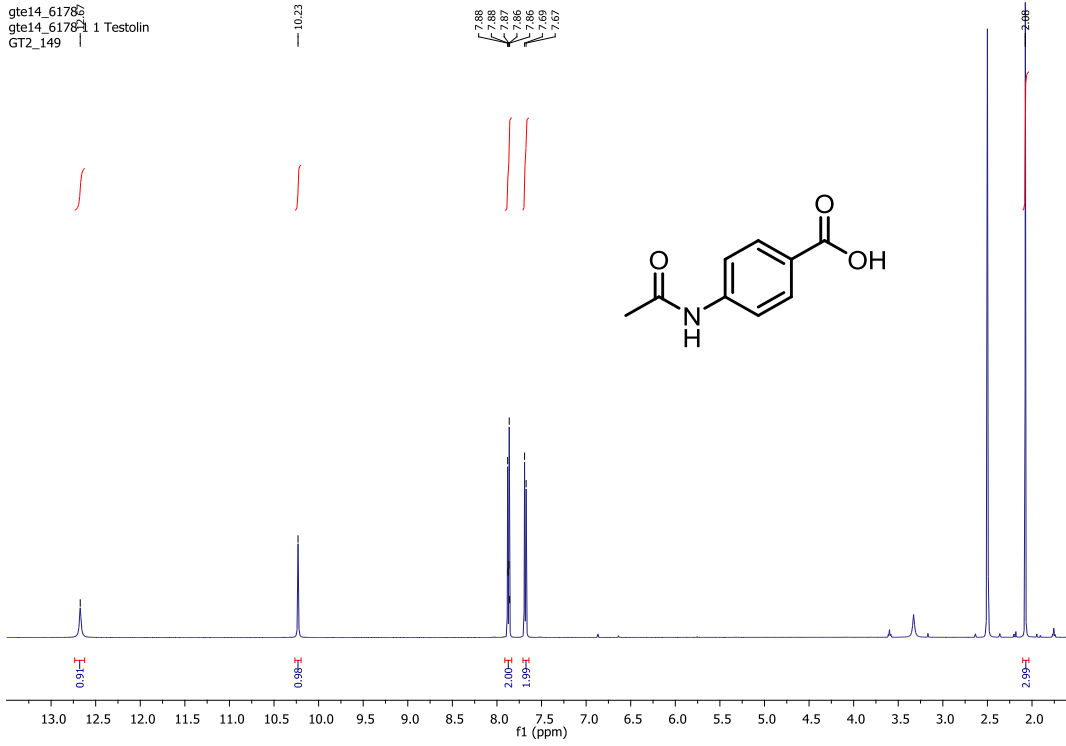


CBCS5584  
CBCS5584 2 1 Testol  
MS\_10

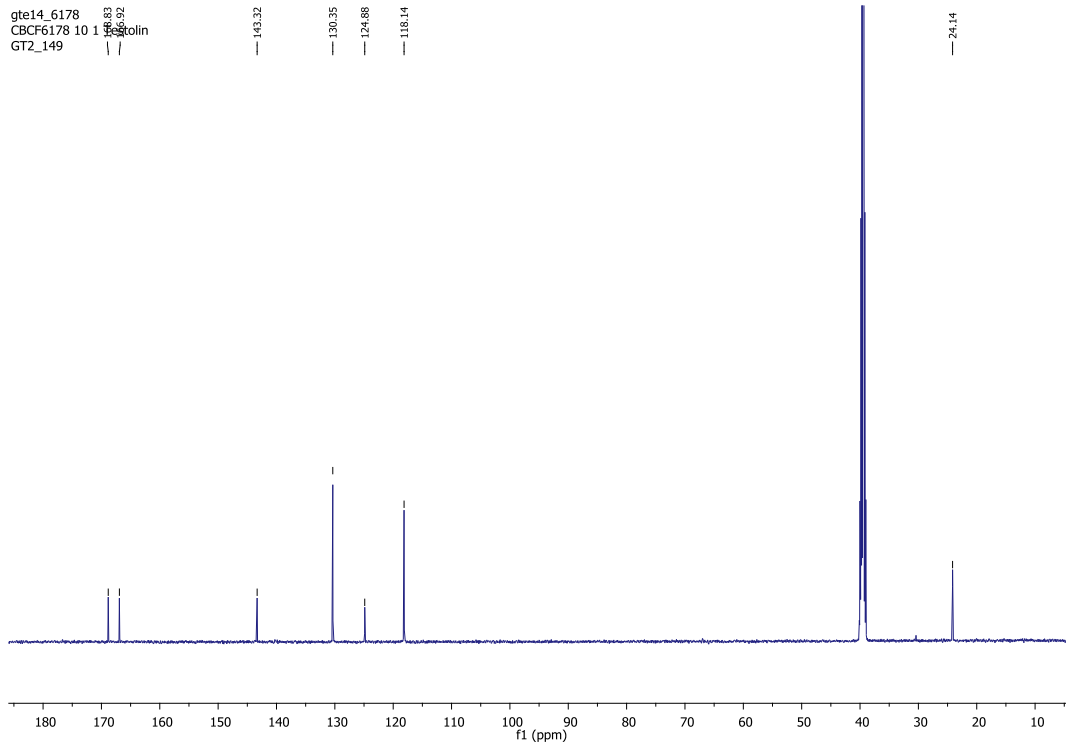


# 4-Acetamidobenzoic acid

gte14\_6178  
gte14\_6178 1 Testolin  
GT2\_149

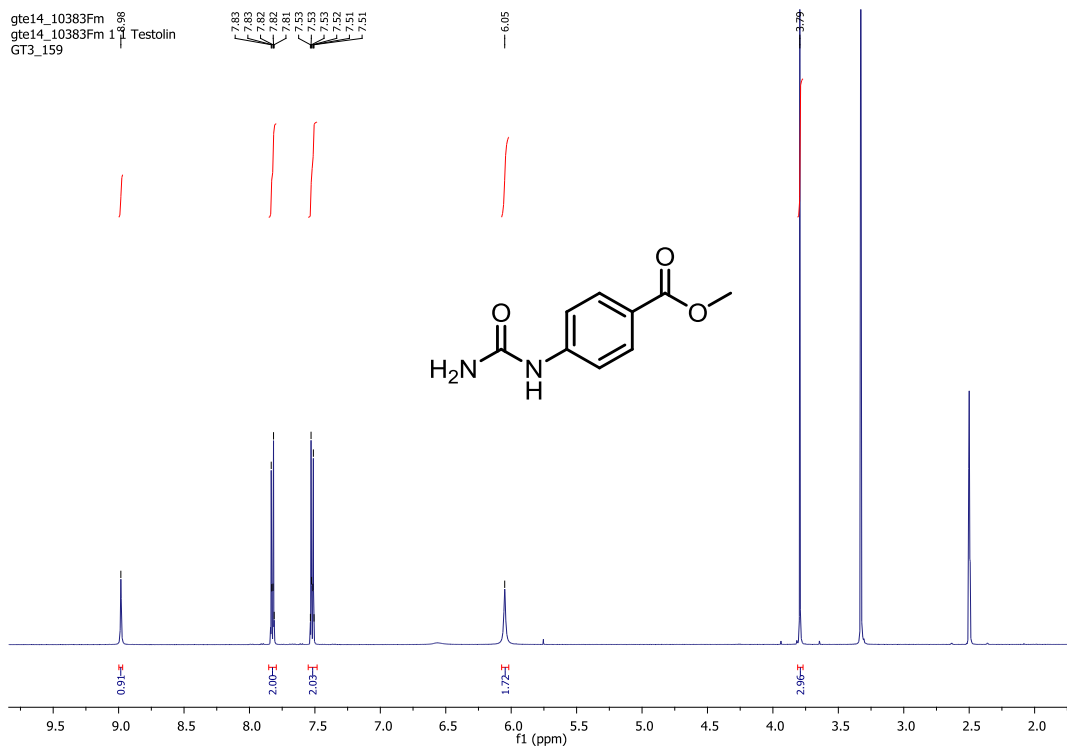


gte14\_6178  
CBCF6178 10 1 Testolin  
GT2\_149

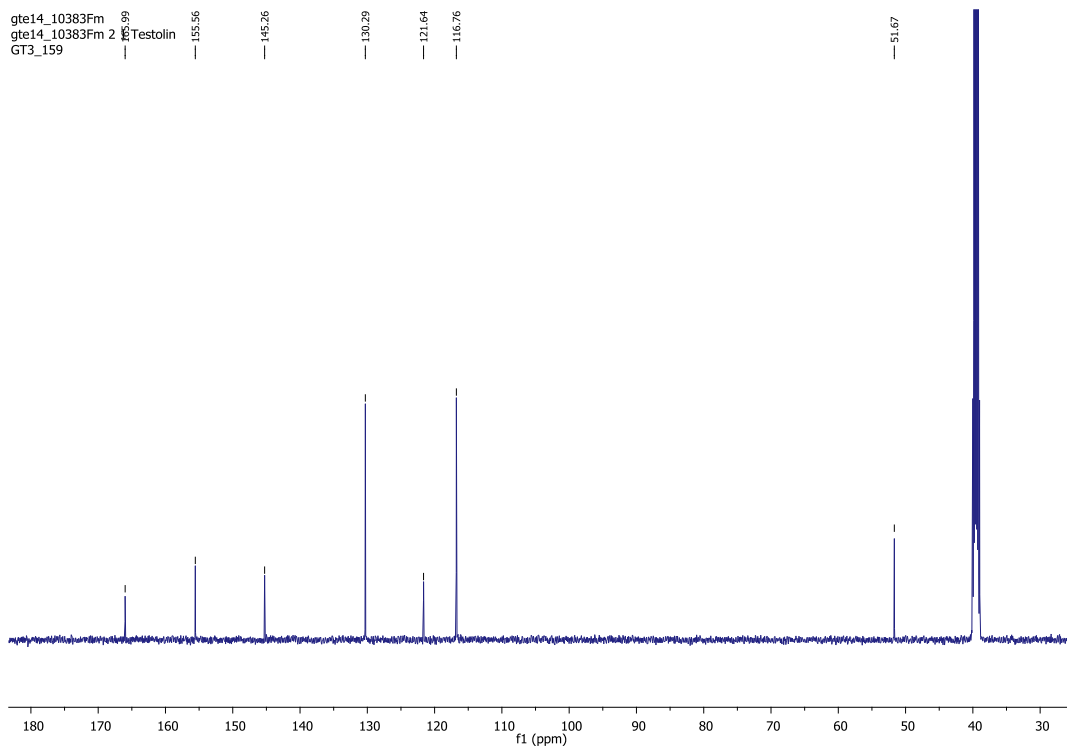


# Methyl 4-ureidobenzoate

gte14\_10383Fm  
gte14\_10383Fm 1  
GT3\_159



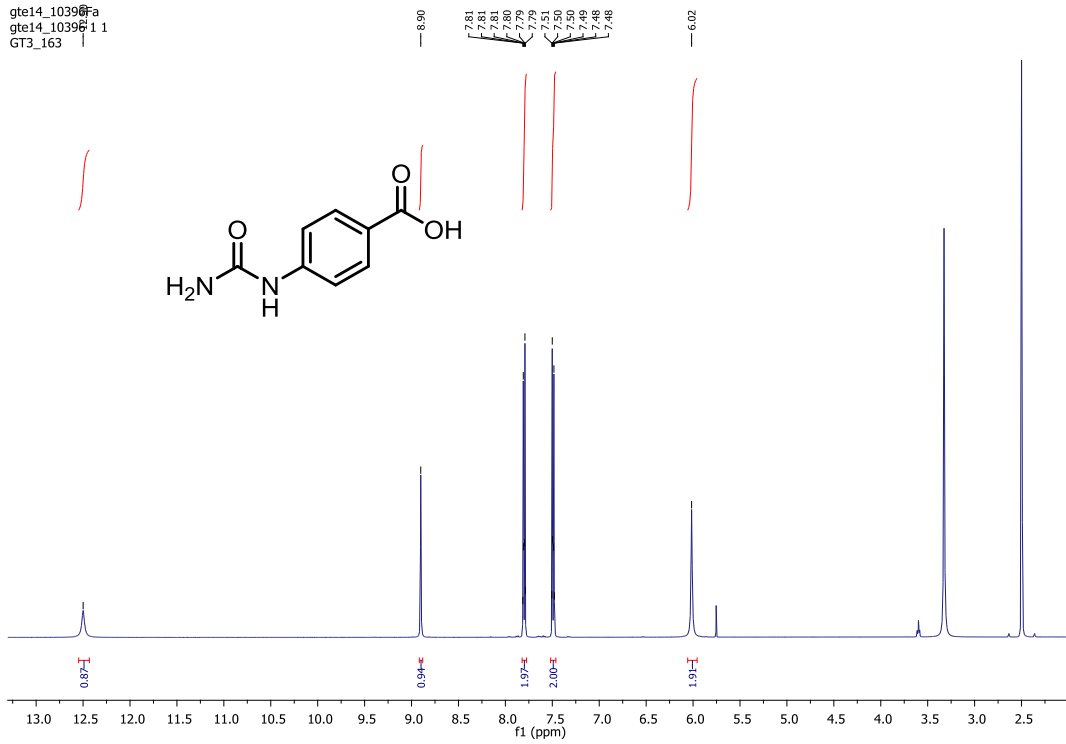
gte14\_10383Fm  
gte14\_10383Fm 2  
GT3\_159



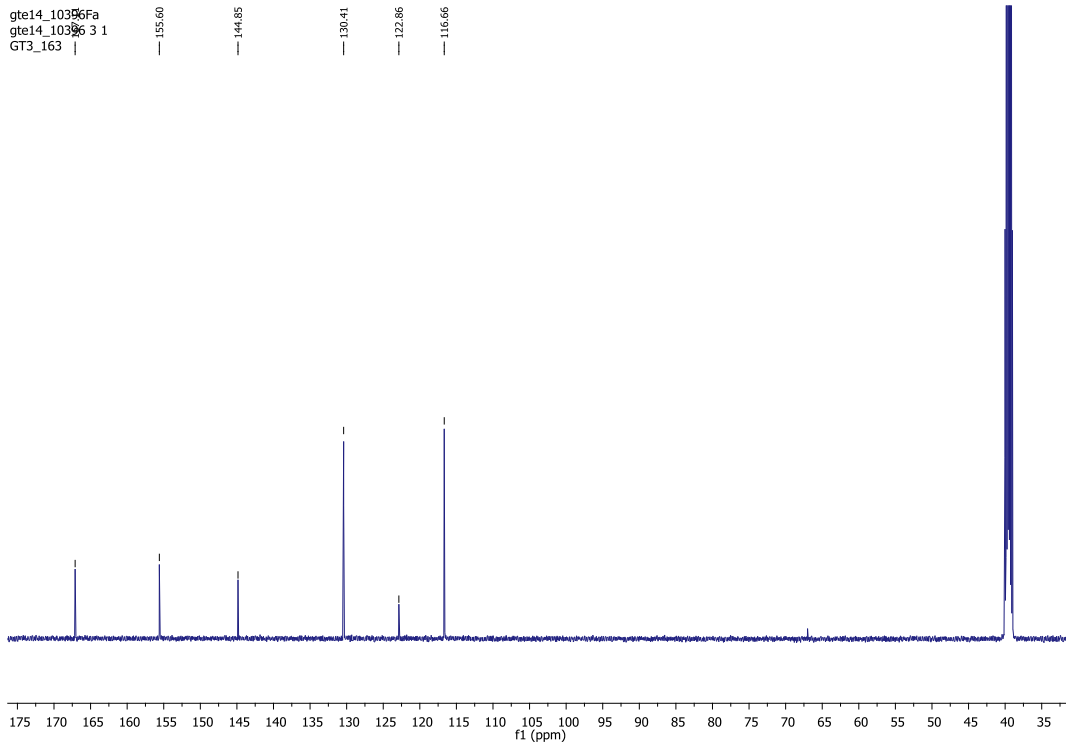


# 4-Ureidobenzoic acid

gte14\_10396Fa  
gte14\_10396 1 1  
GT3\_163



gte14\_10396Fa  
gte14\_10396 3 1  
GT3\_163

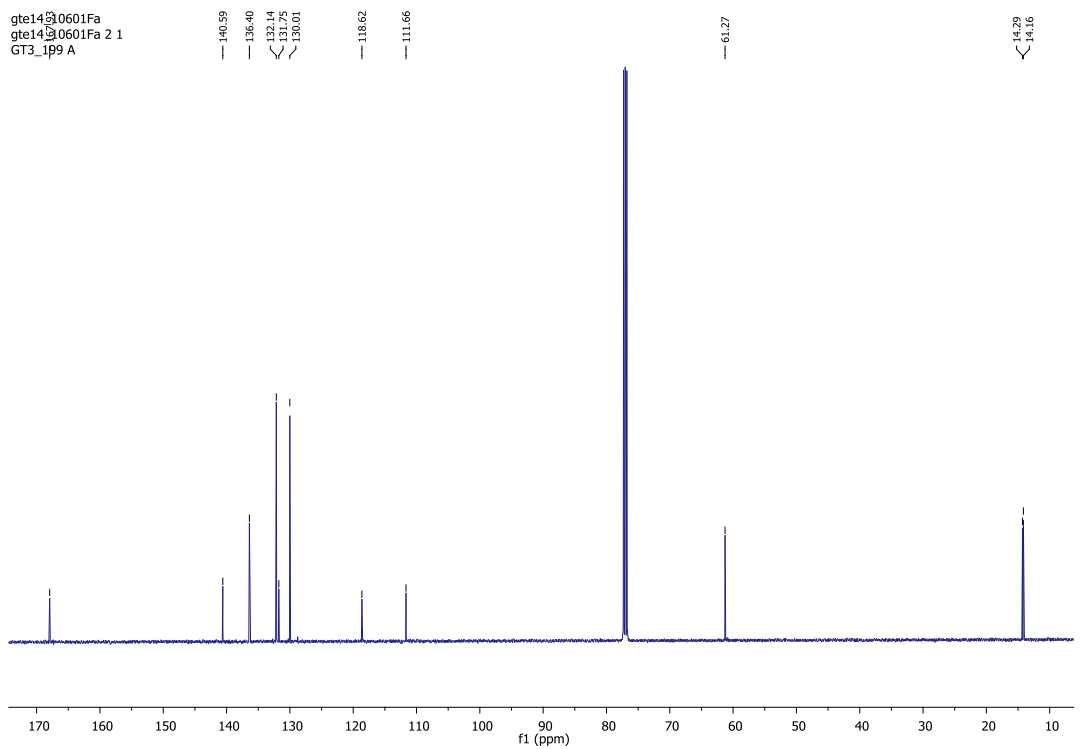


# Ethyl (E)-3-(4-cyanophenyl)-2-methylacrylate

gte14\_10601Fa  
gte14\_10601Fa  
GT3\_199 A



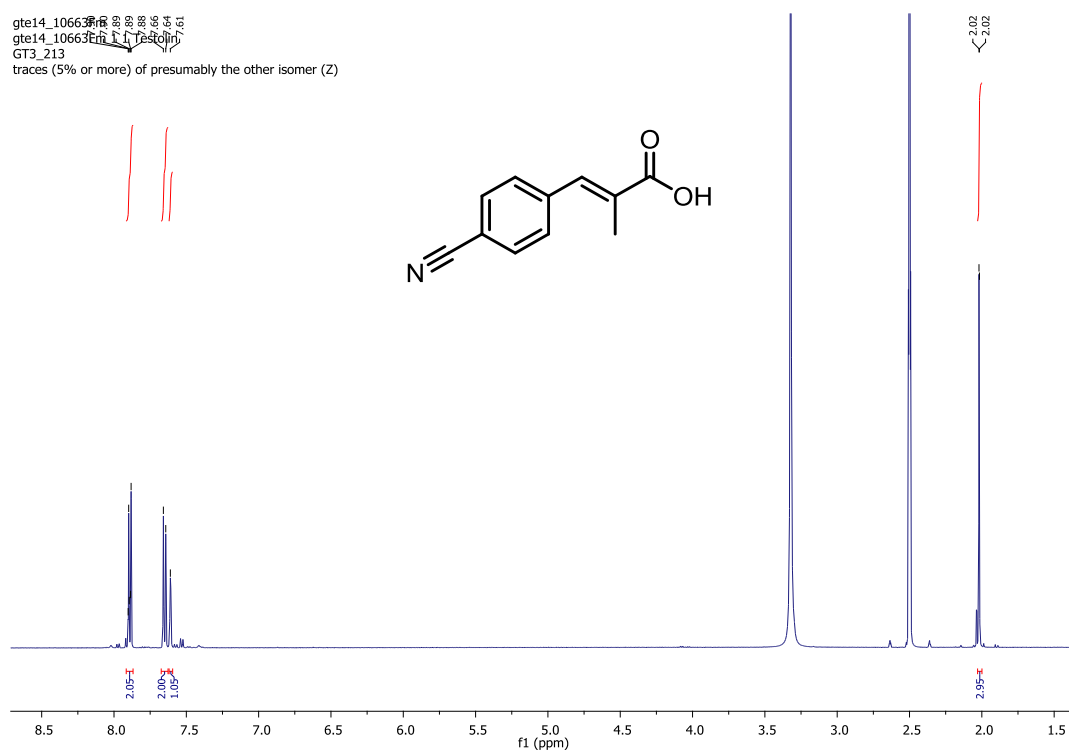
gte14\_10601Fa  
gte14\_10601Fa 2.1  
GT3\_199 A



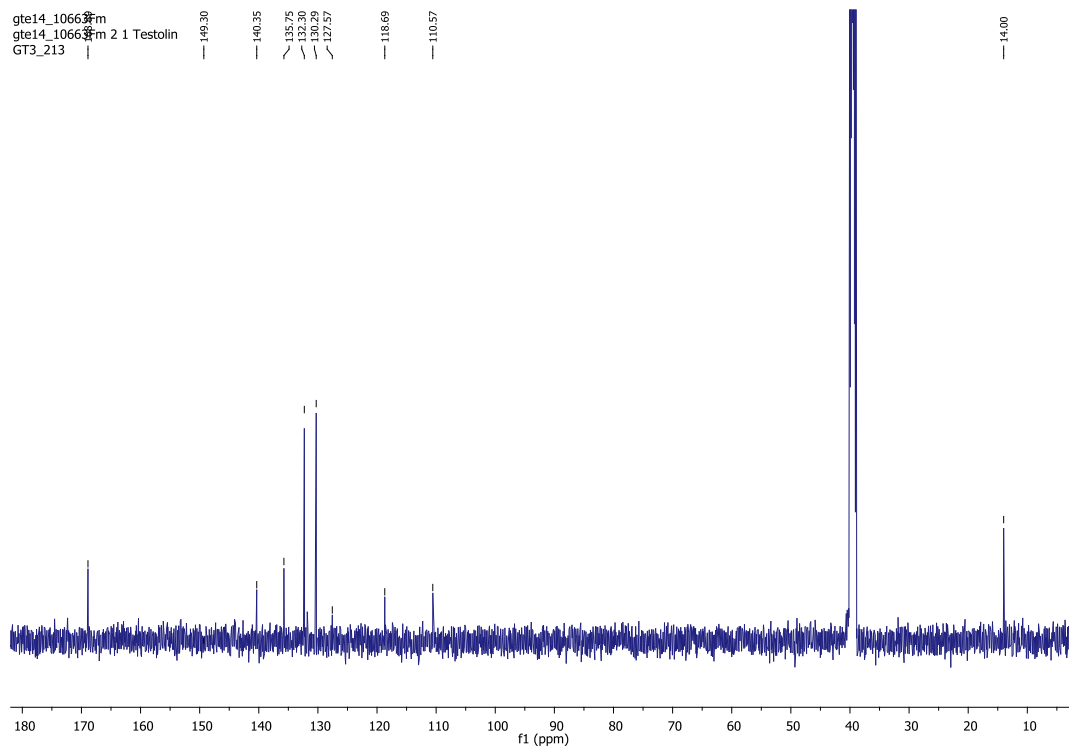
# (E)-3-(4-Cyanophenyl)-2-methylacrylic acid

gte14\_106637m  
gte14\_106637m 2 1 Testolin  
GT3\_213

traces (5% or more) of presumably the other isomer (Z)

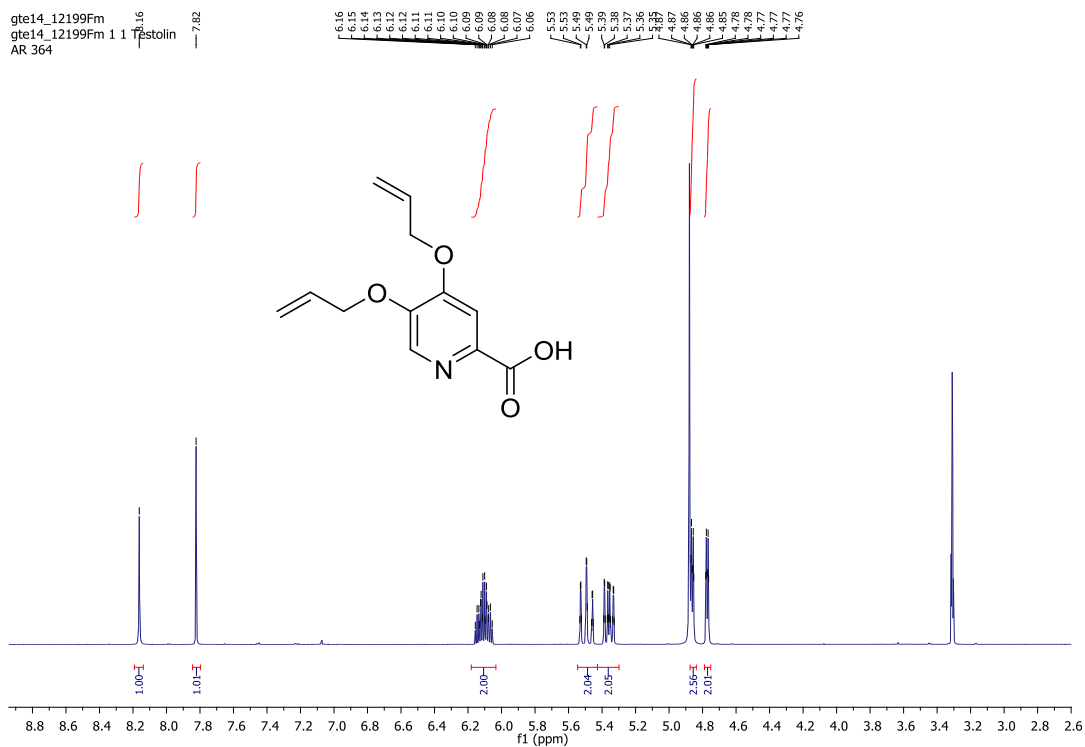


gte14\_106637m  
gte14\_106637m 2 1 Testolin  
GT3\_213

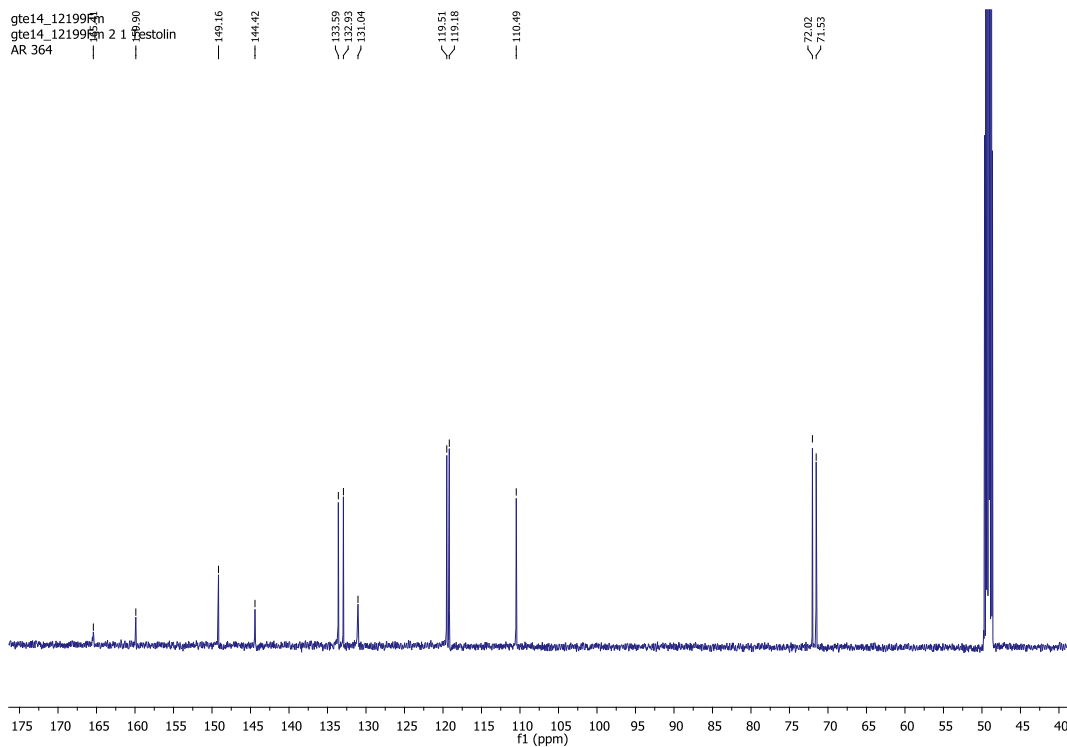


# 4,5-Bis(allyloxy)picolinic acid

gte14\_12199Fm  
 gte14\_12199Fm 1 1 1 1  
 AR 364

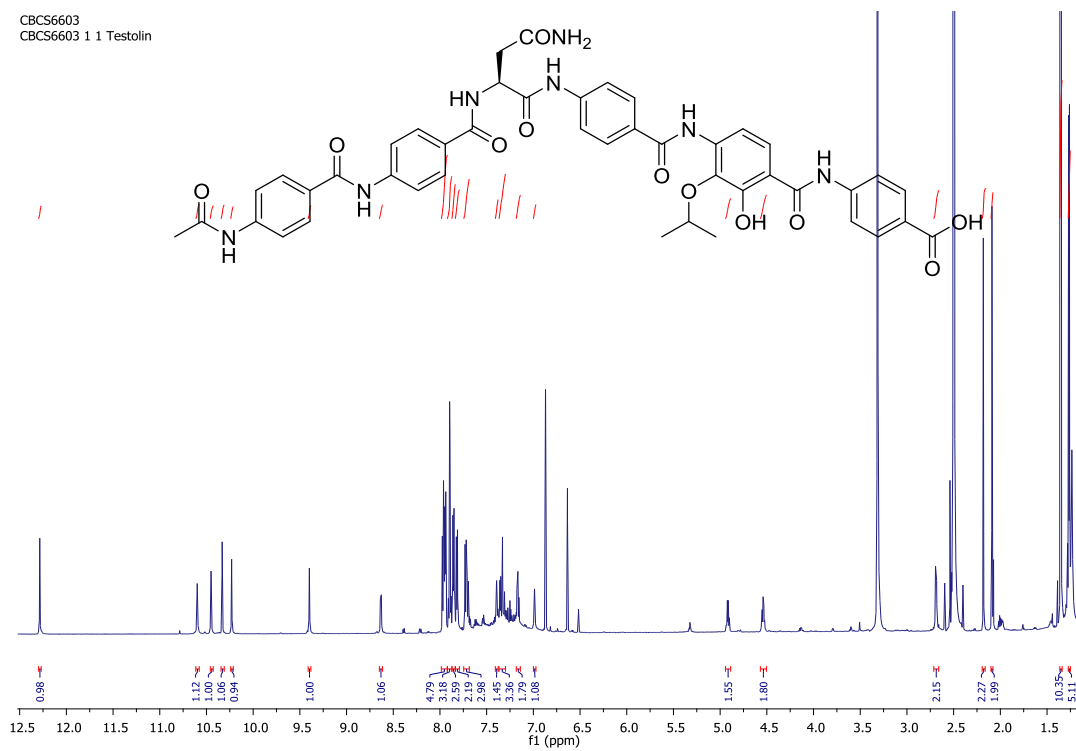


gte14\_12199Fm  
 gte14\_12199Fm 2 1 1 1  
 AR 364

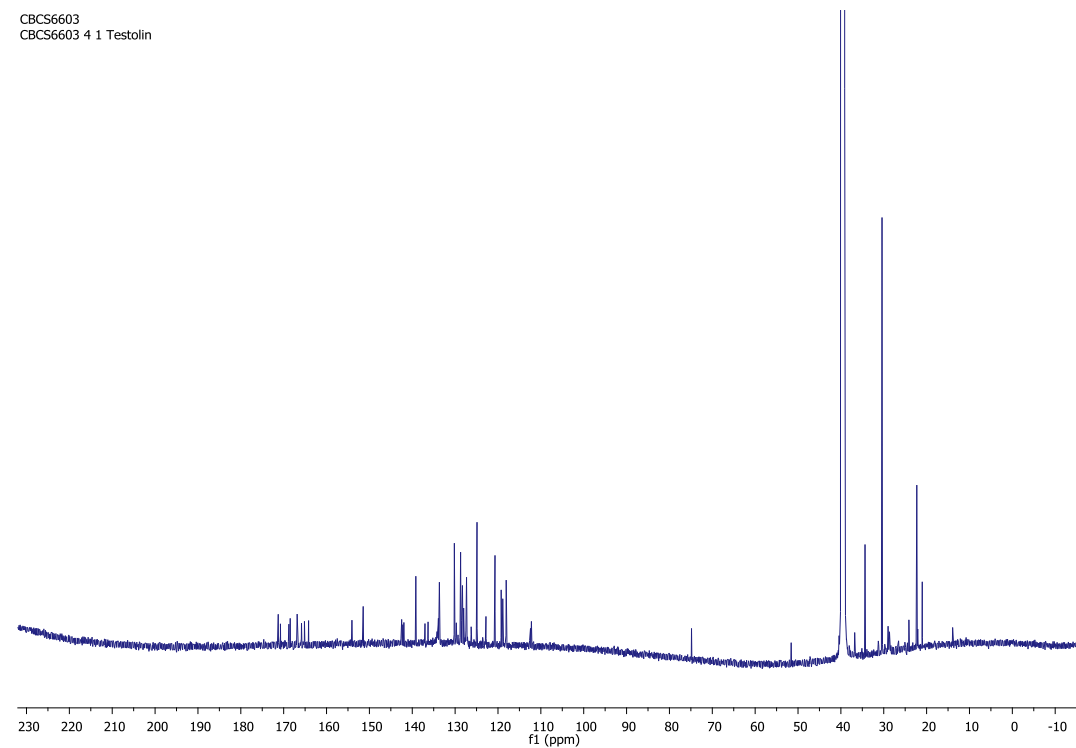


**(S)-4-(4-(4-(2-(4-(4-Acetamidobenzamido)benzamido)-4-amino-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

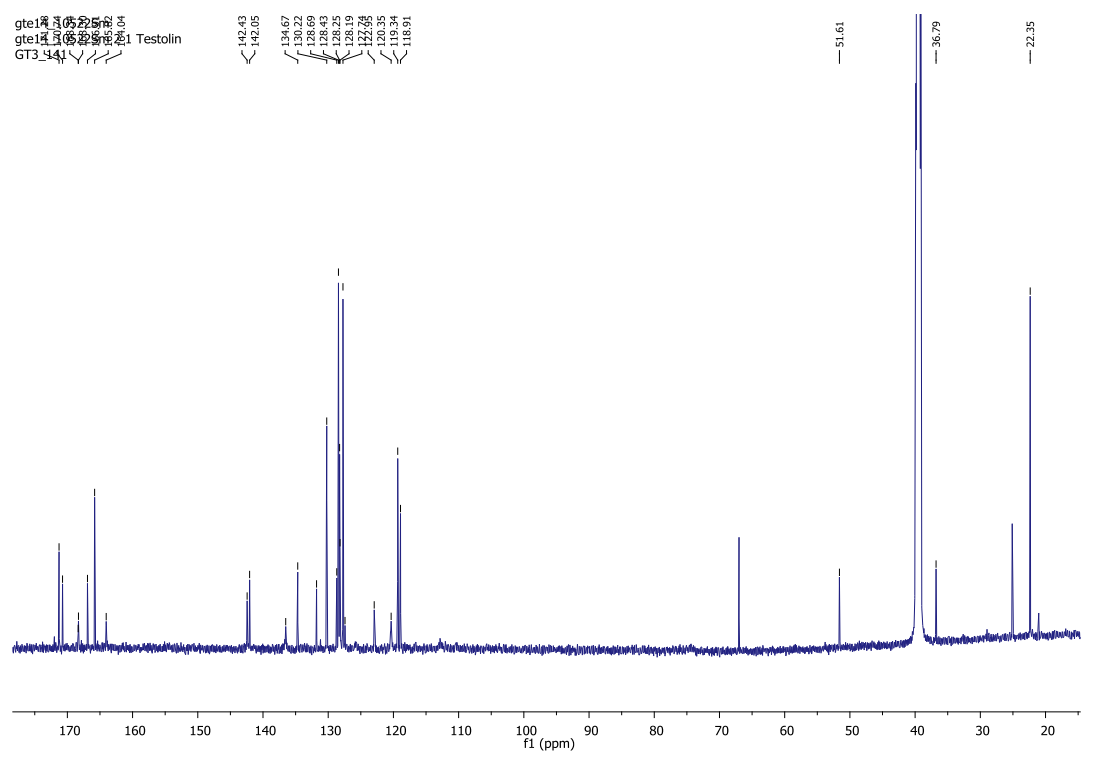
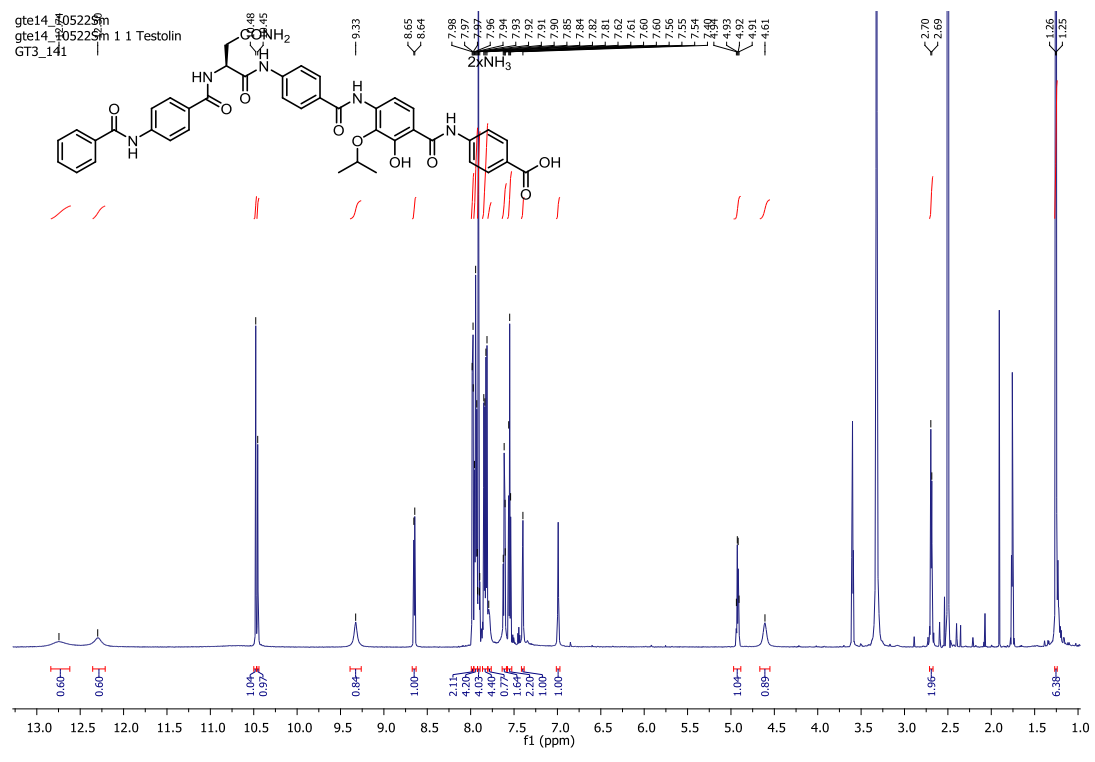
CBCS6603  
CBCS6603 1 1 Testolin



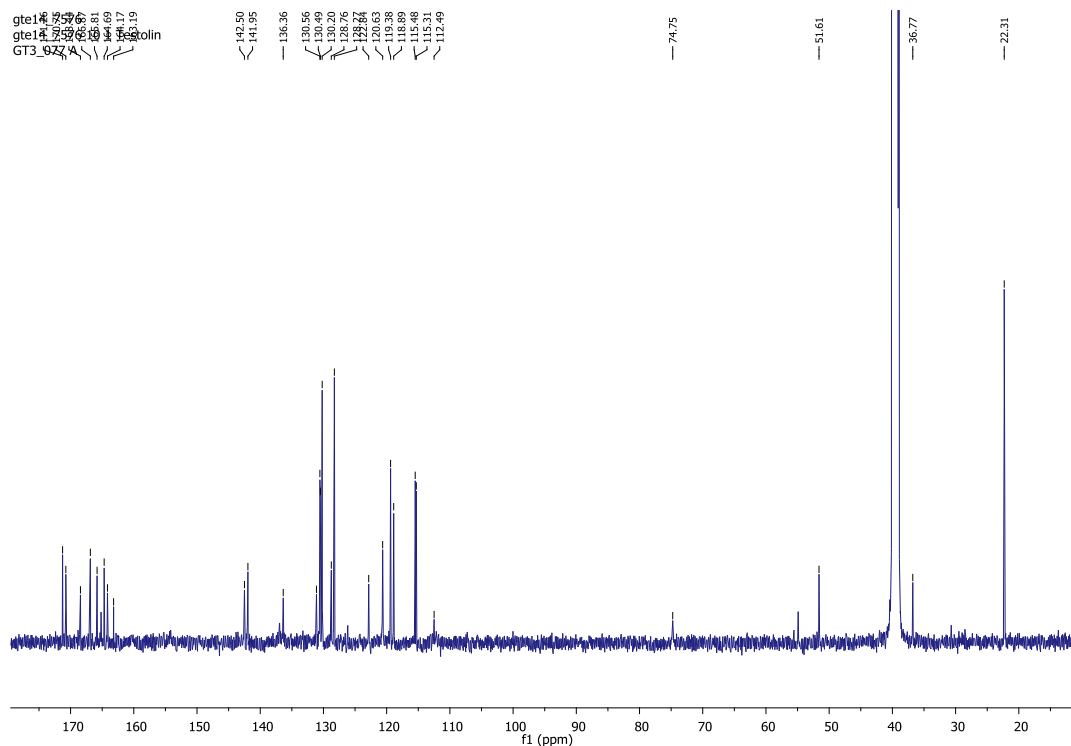
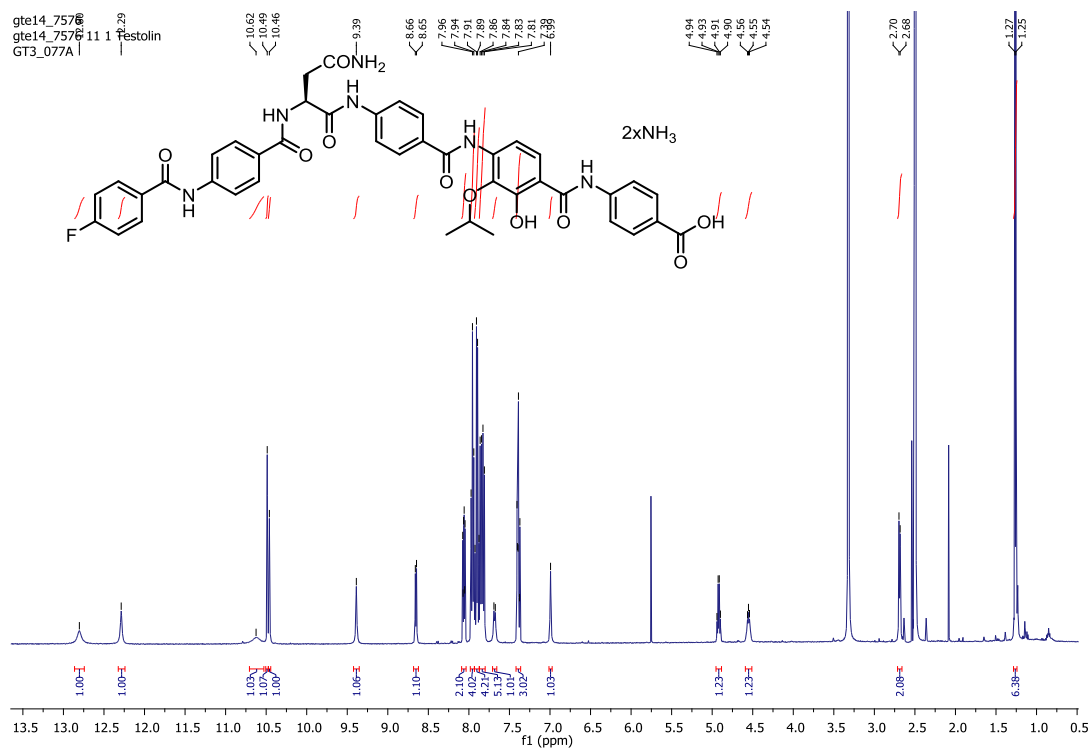
CBCS6603  
CBCS6603 4 1 Testolin



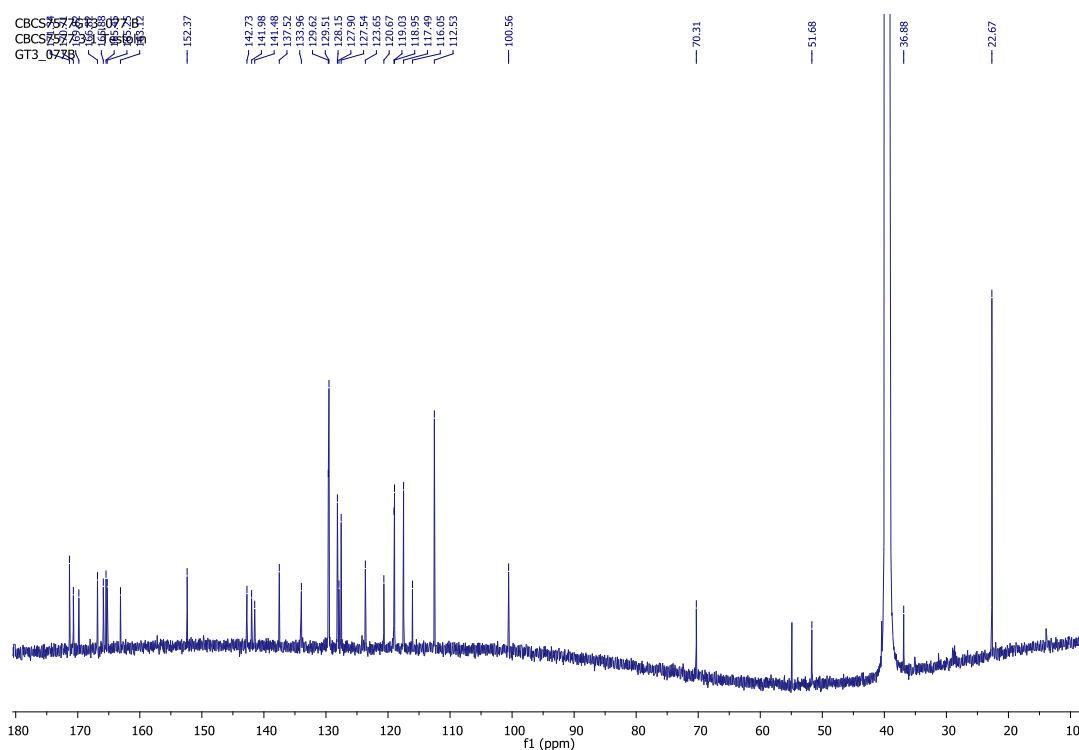
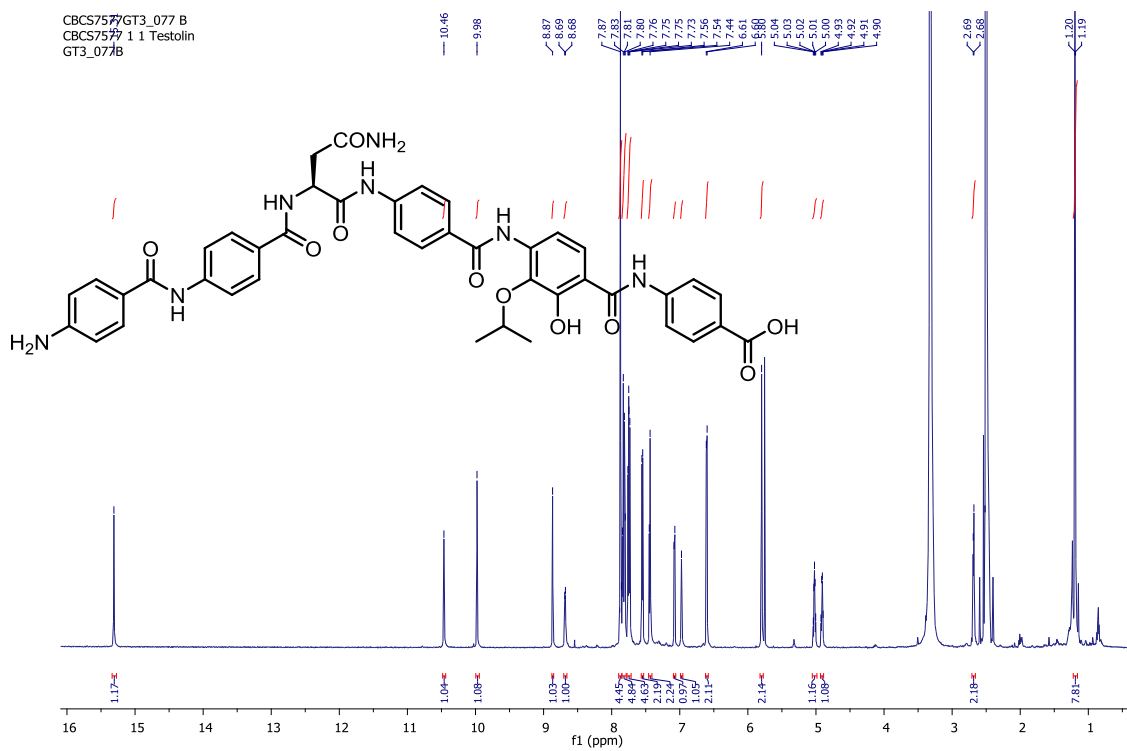
**(S)-4-(4-(4-(4-Amino-2-(4-benzamidobenzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



**(S)-4-(4-(4-(4-Amino-2-(4-(4-fluorobenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

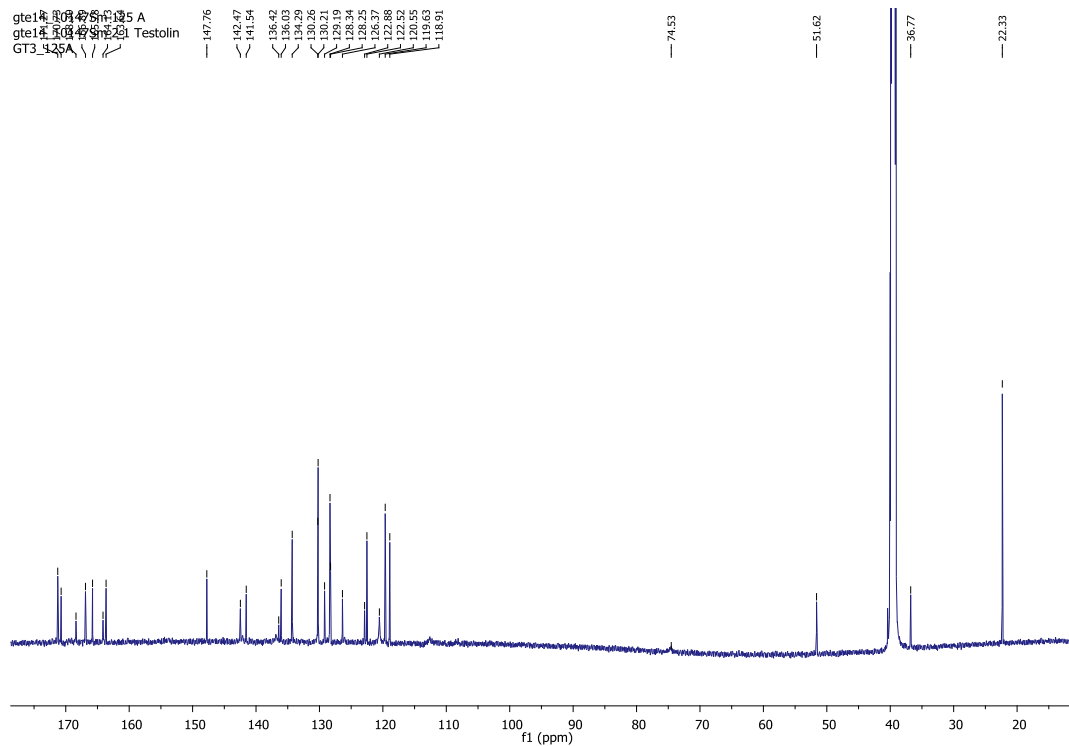
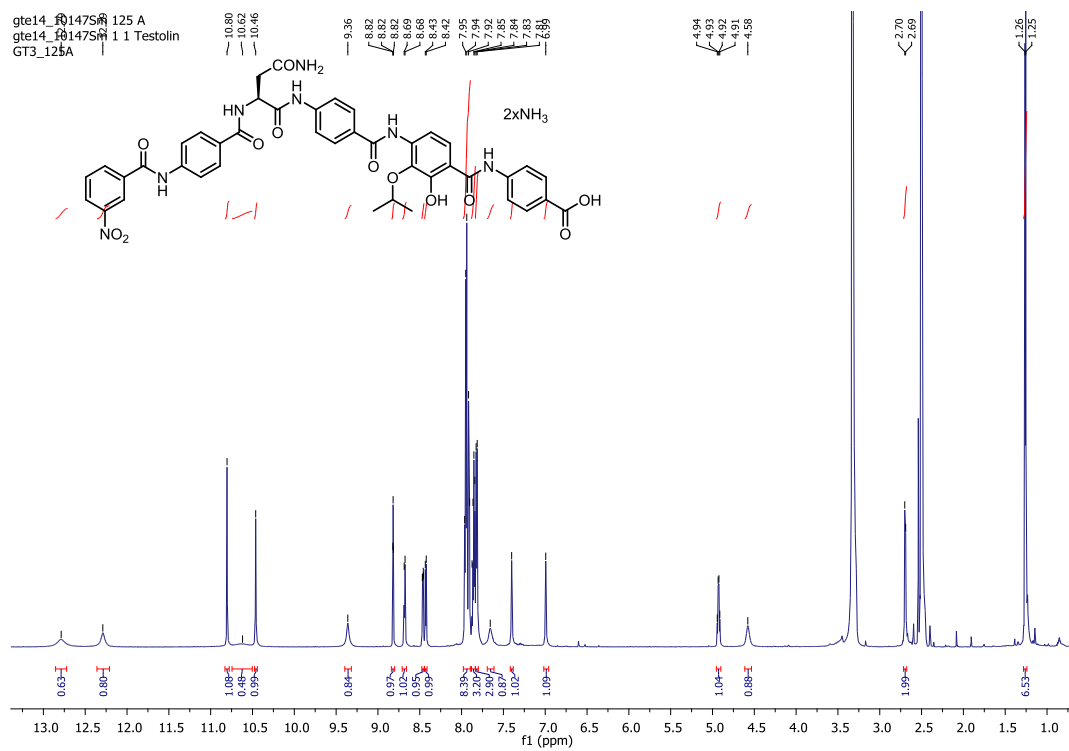


# (S)-4-(4-(4-(4-Amino-2-(4-(4-aminobenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid

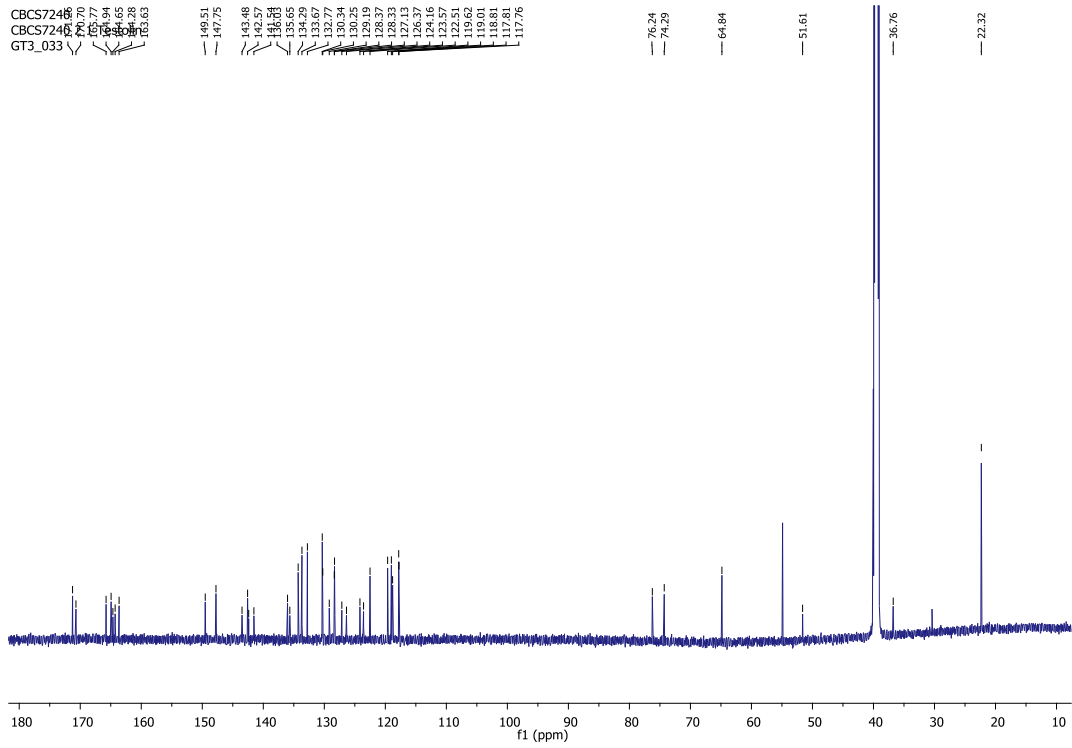
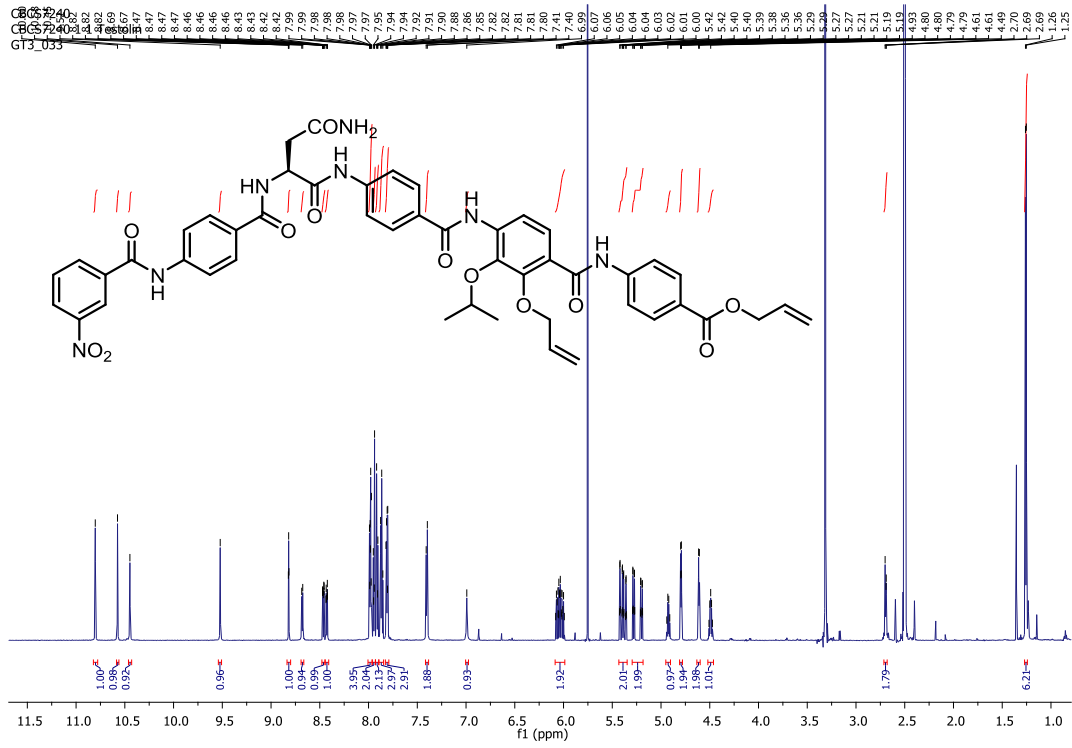




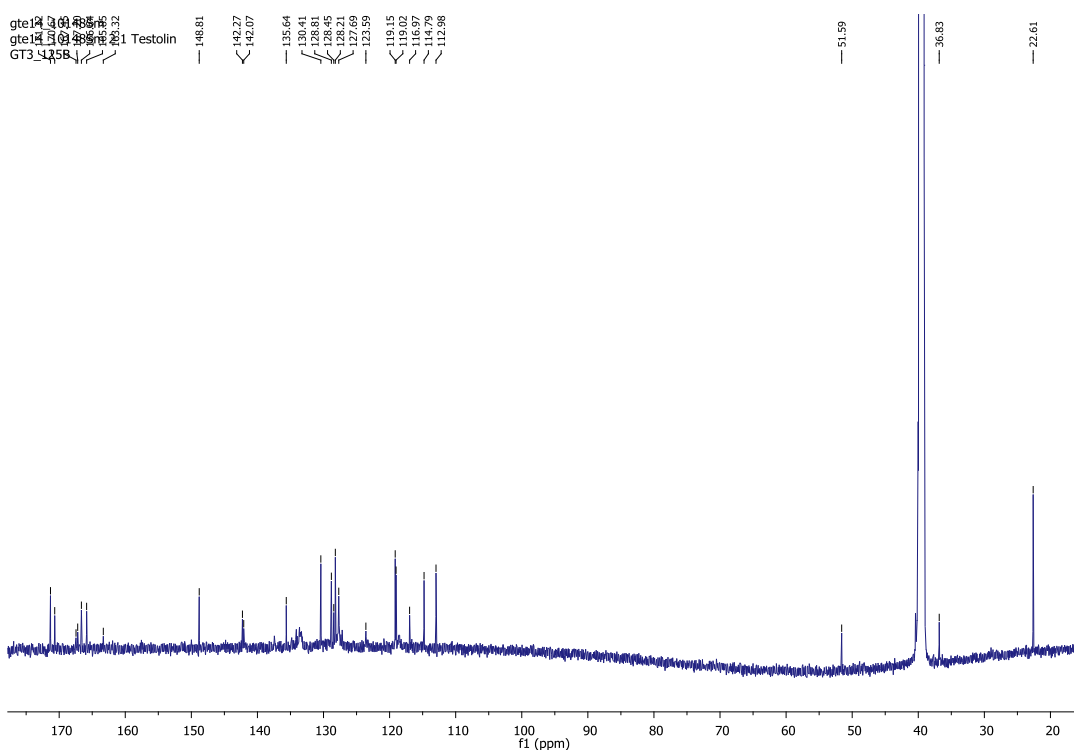
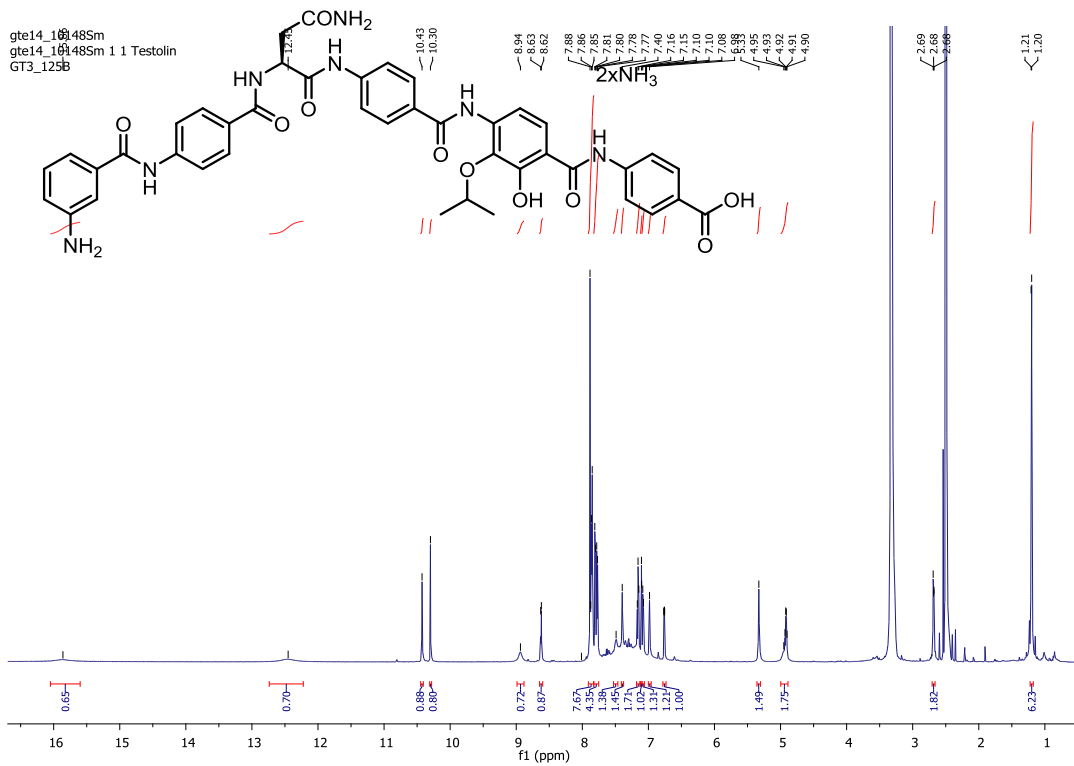
**(S)-4-(4-(4-(4-Amino-2-(4-(3-nitrobenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



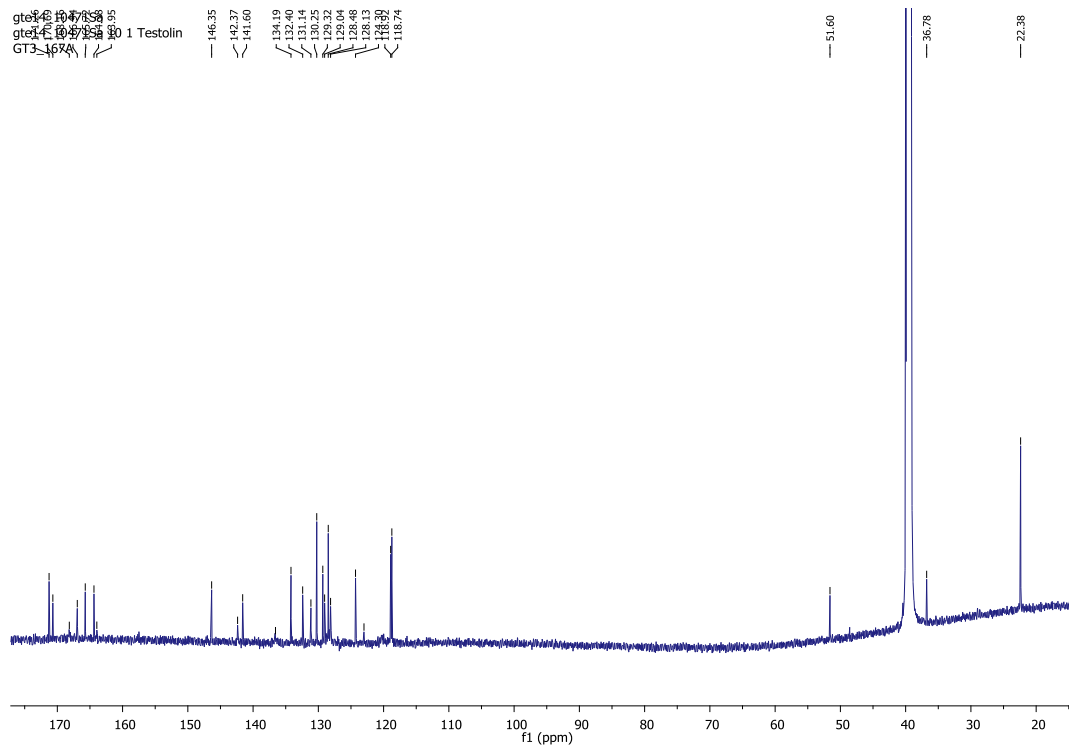
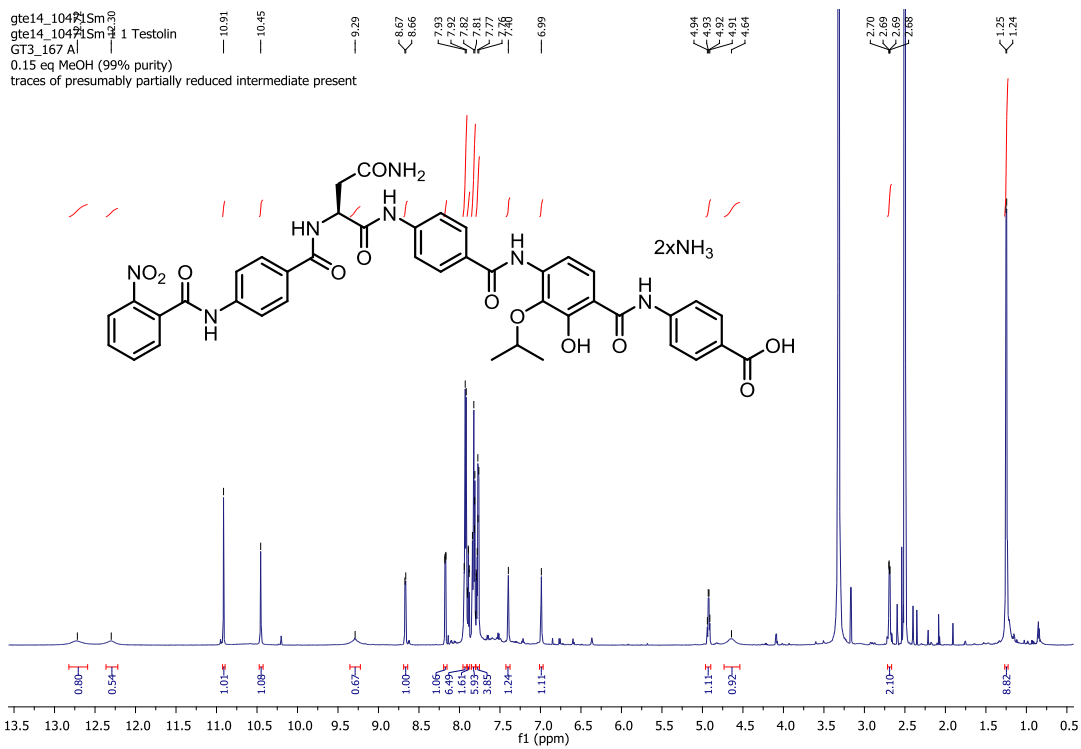
**Allyl protected intermediate:**



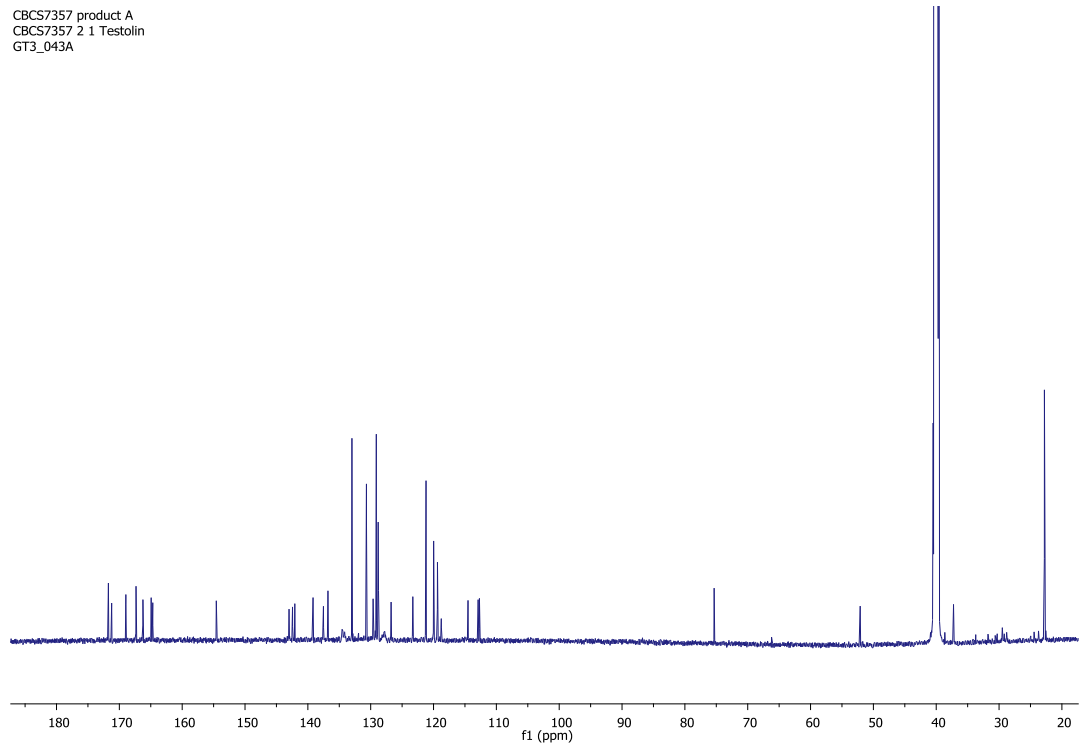
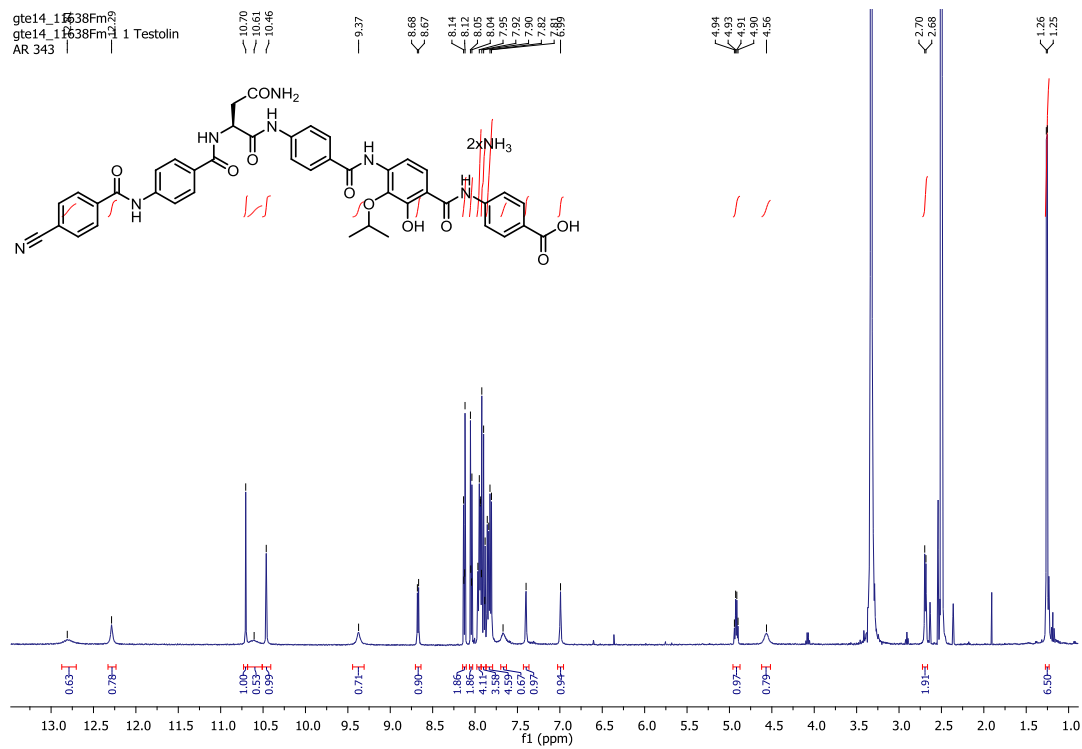
**(S)-4-(4-(4-(4-Amino-2-(4-(3-aminobenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



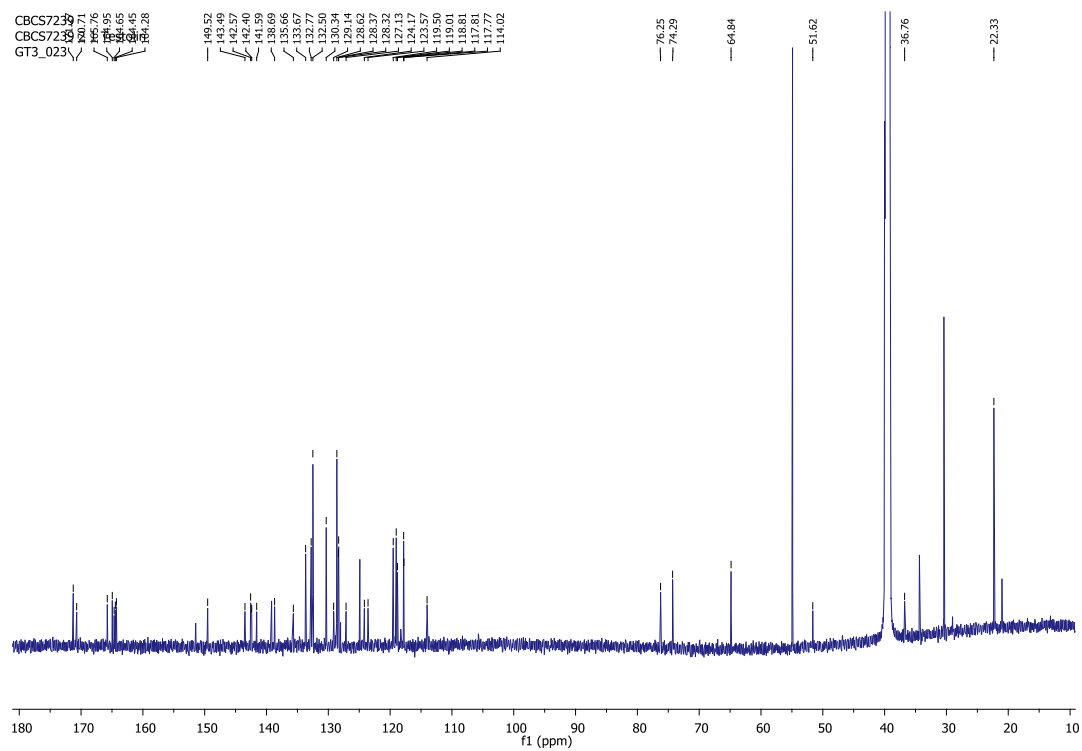
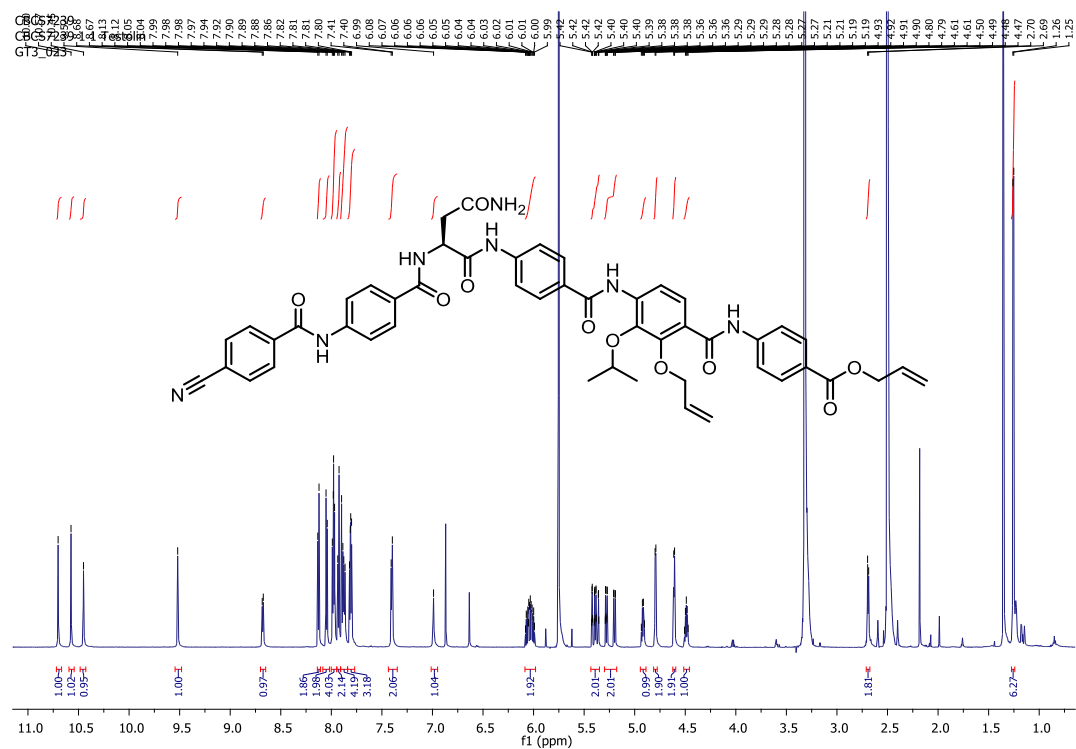
**(S)-4-(4-(4-(4-Amino-2-(4-(2-nitrobenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



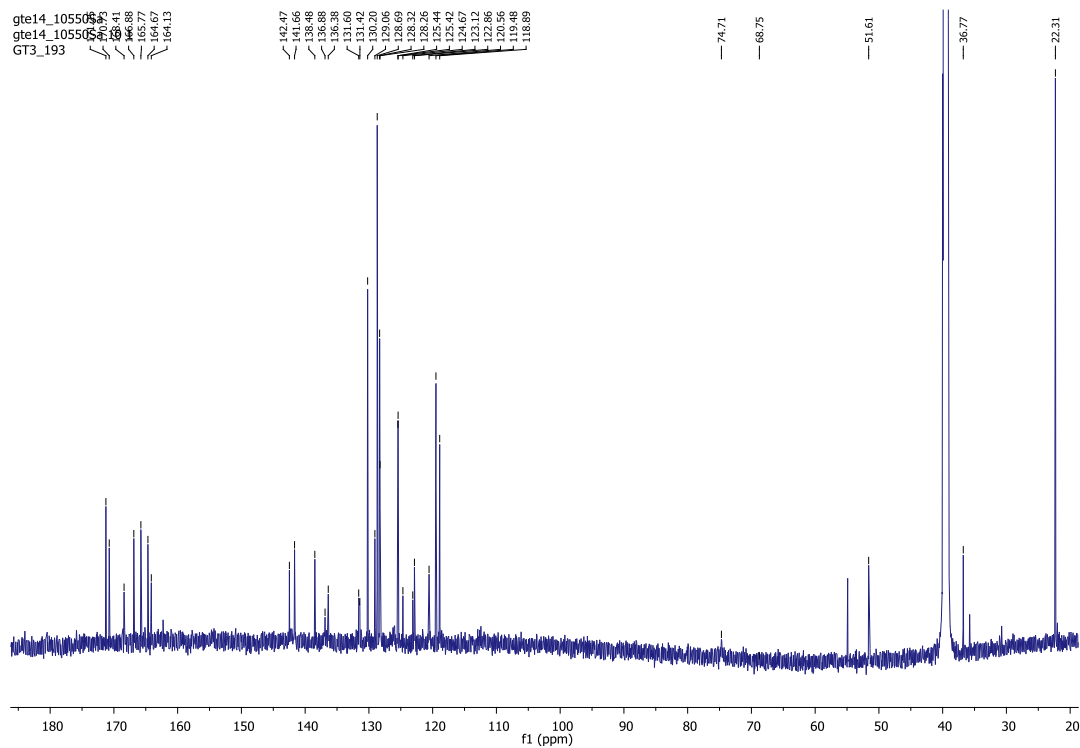
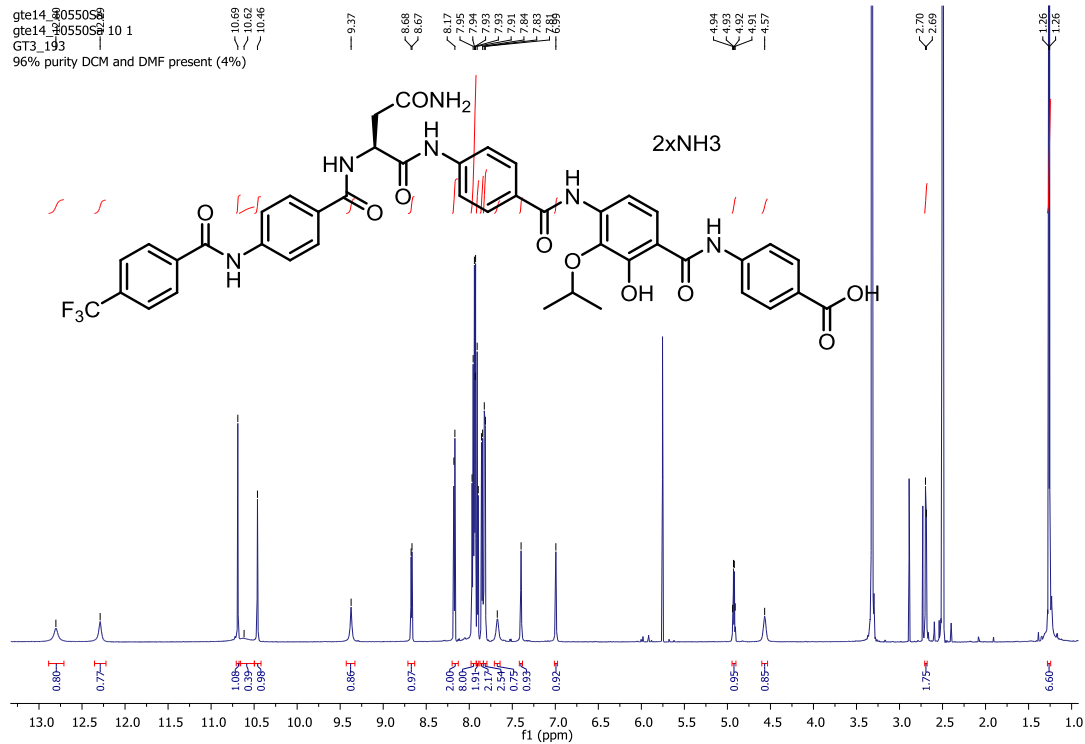
**(S)-4-(4-(4-(4-Amino-2-(4-(4-cyanobenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



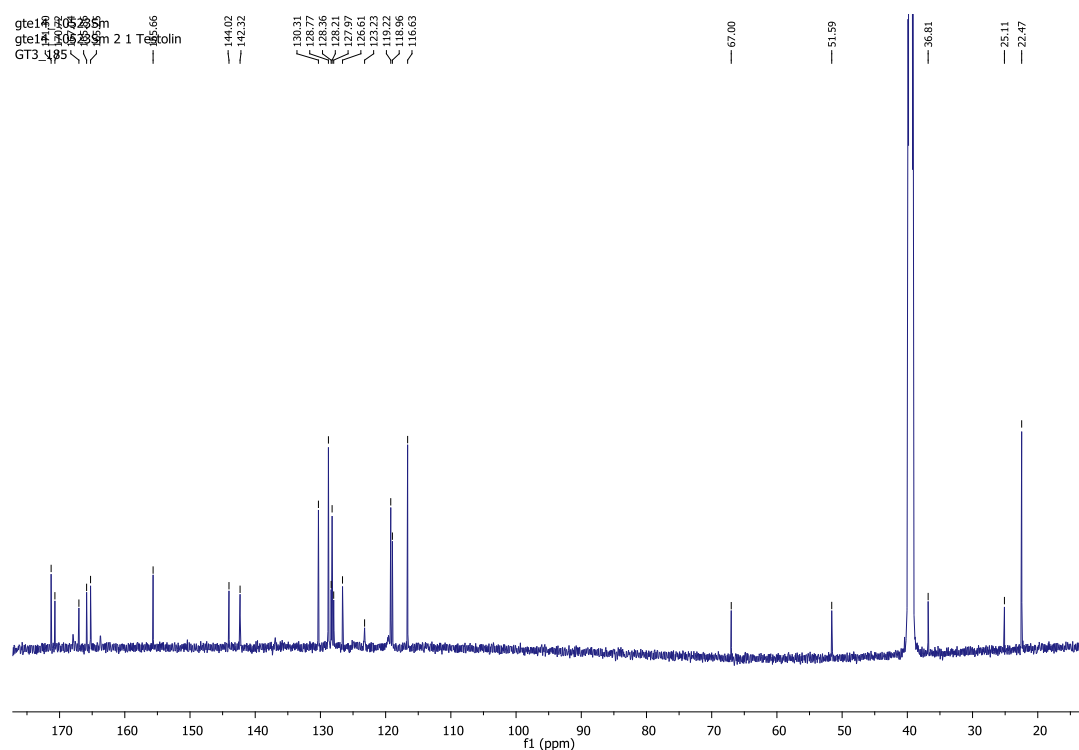
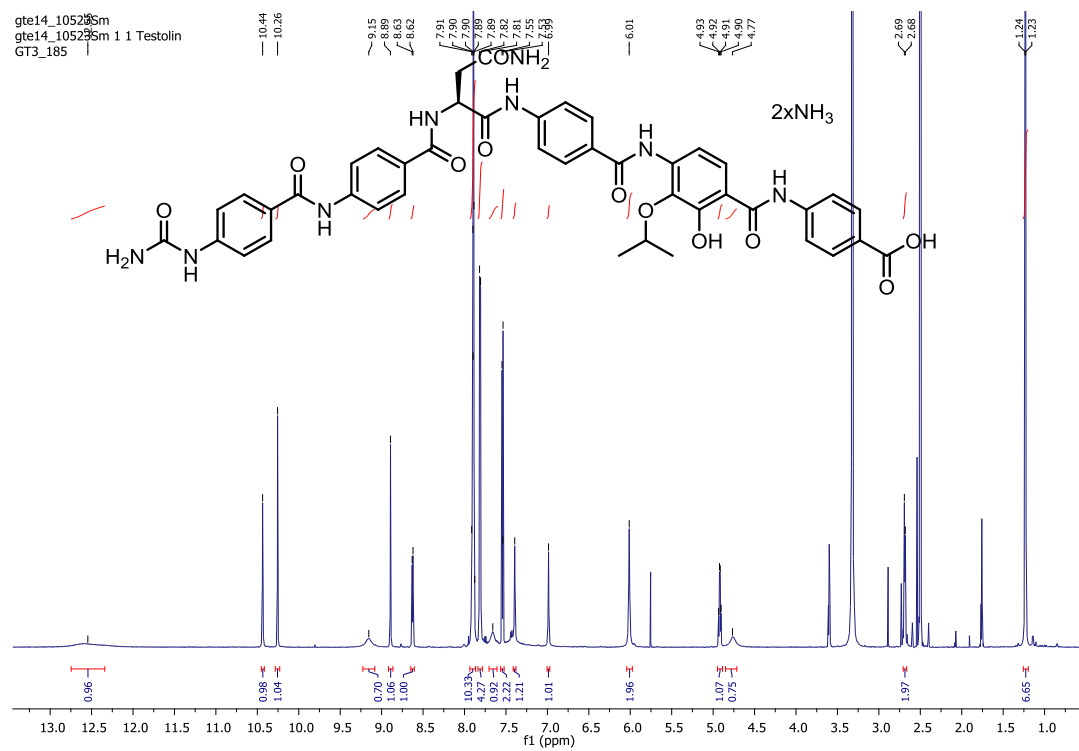
# Allyl protected intermediate:



**(S)-4-(4-(4-(4-Amino-4-oxo-2-(4-(4-(trifluoromethyl)benzamido)benzamido)butanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

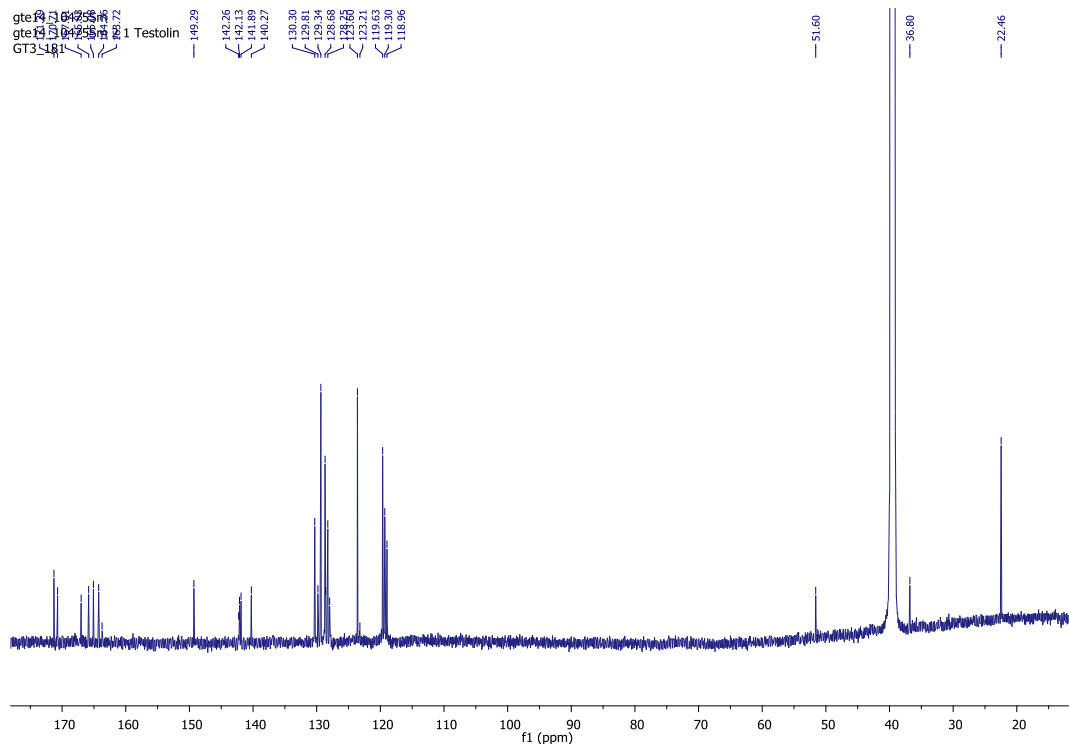
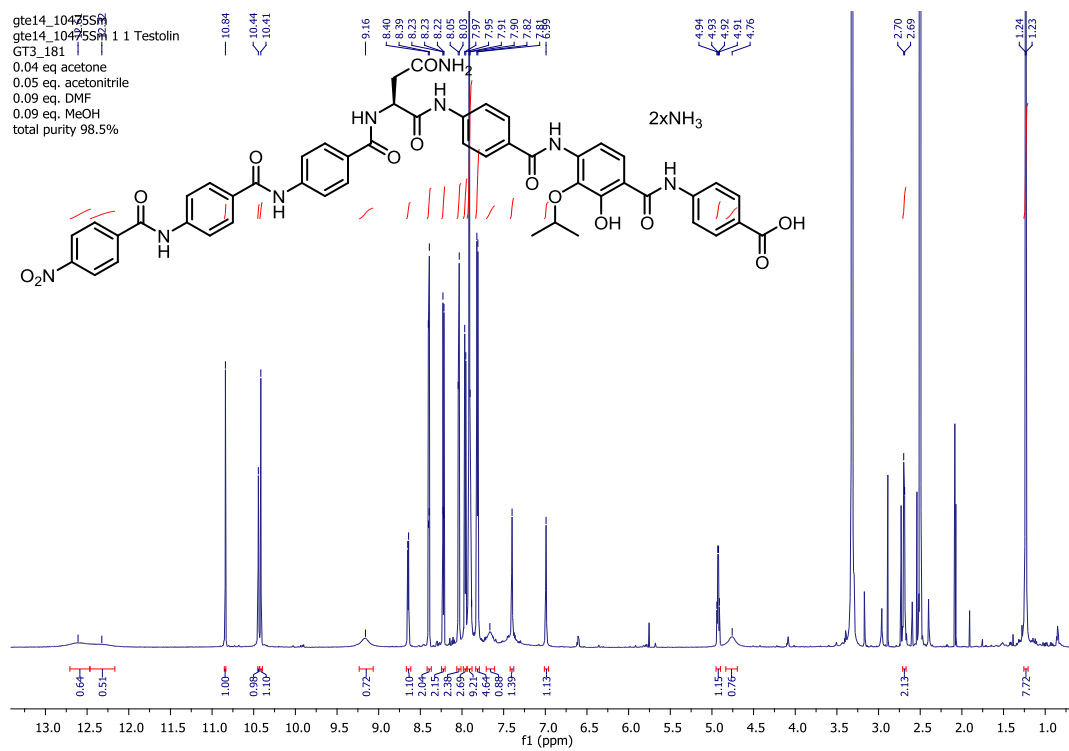


**(S)-4-(4-(4-(4-Amino-4-oxo-2-(4-(4-ureidobenzamido)benzamido)butanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

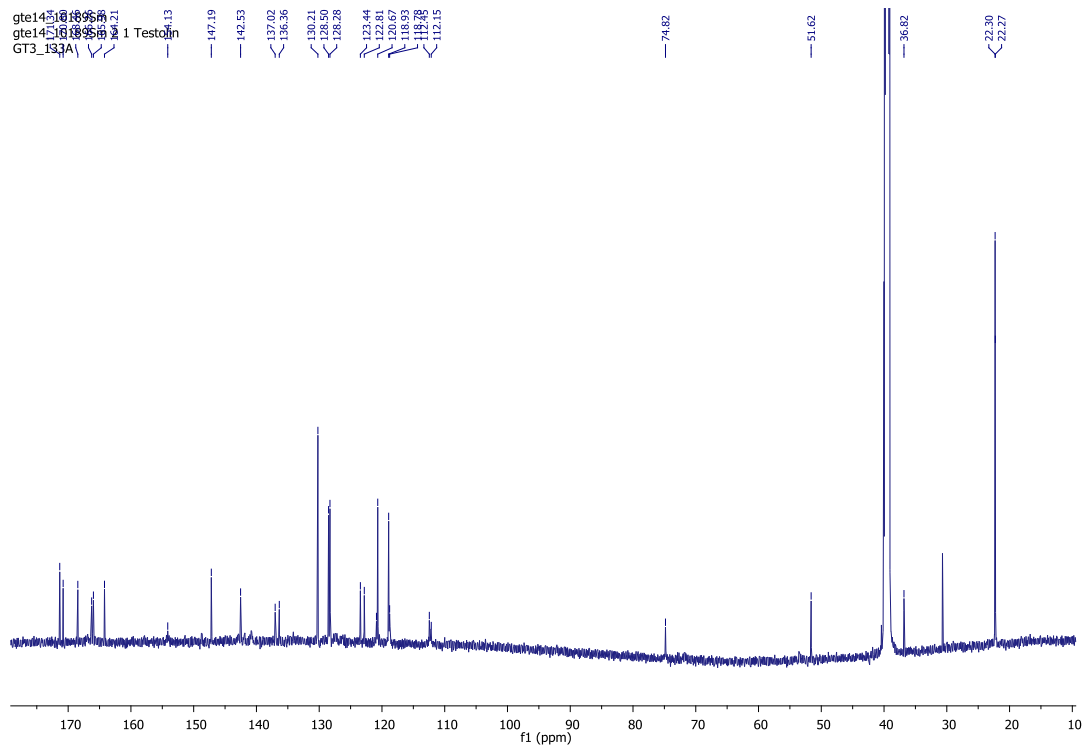
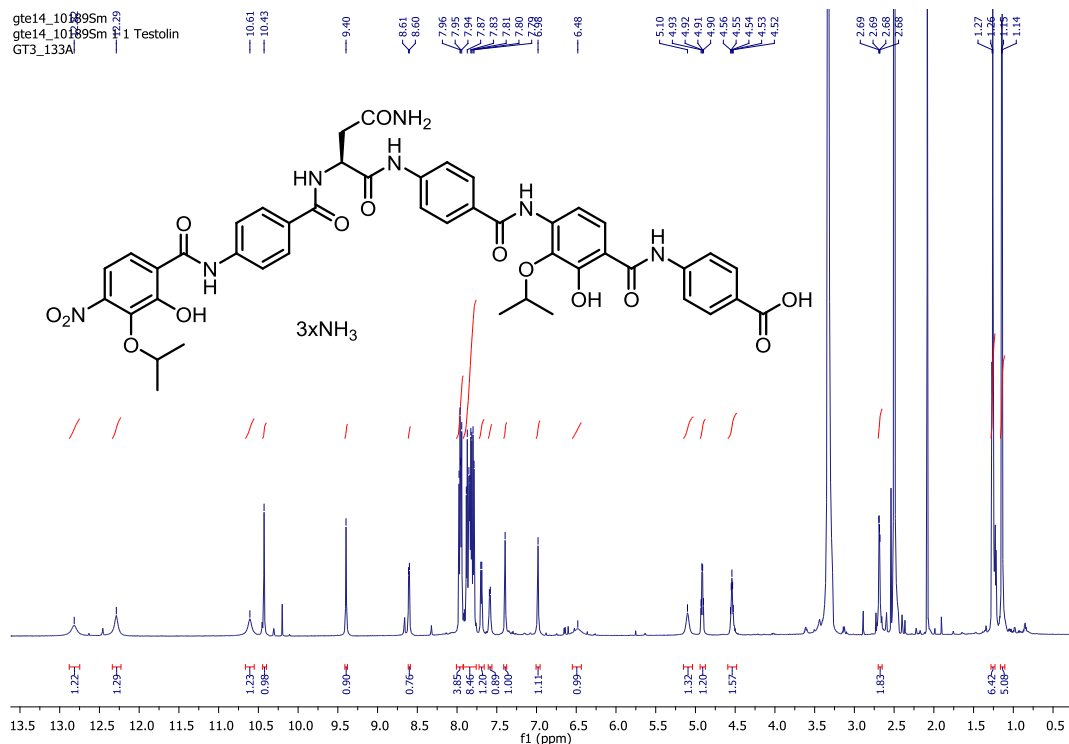




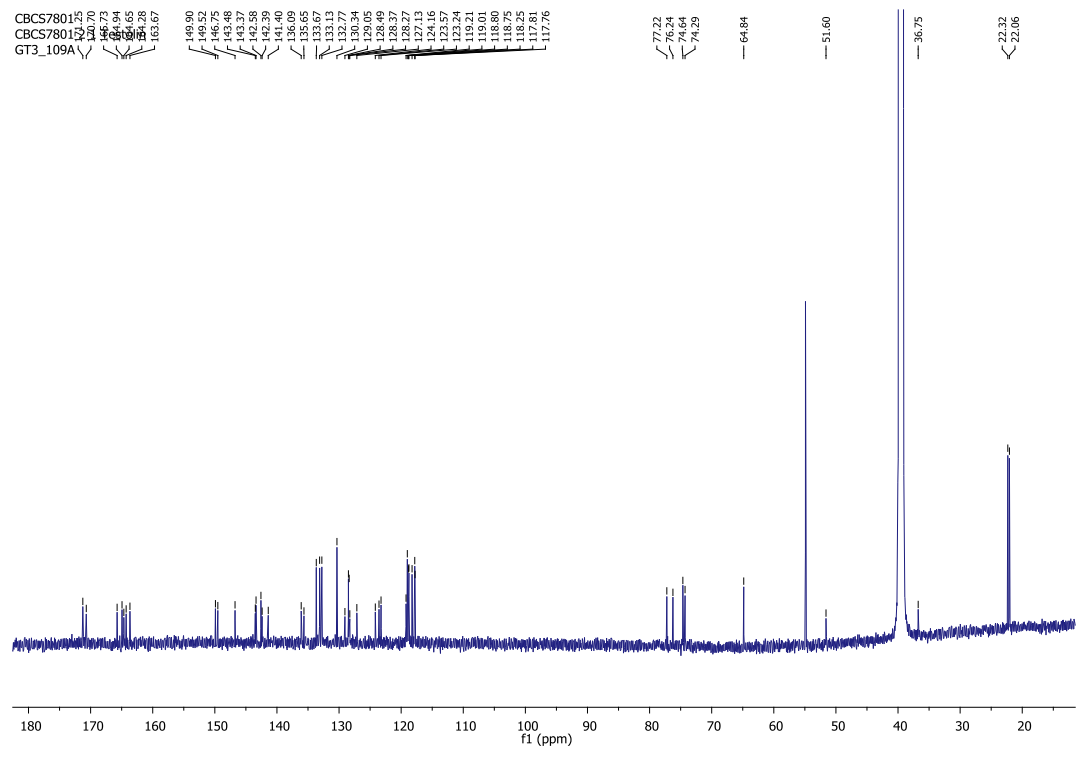
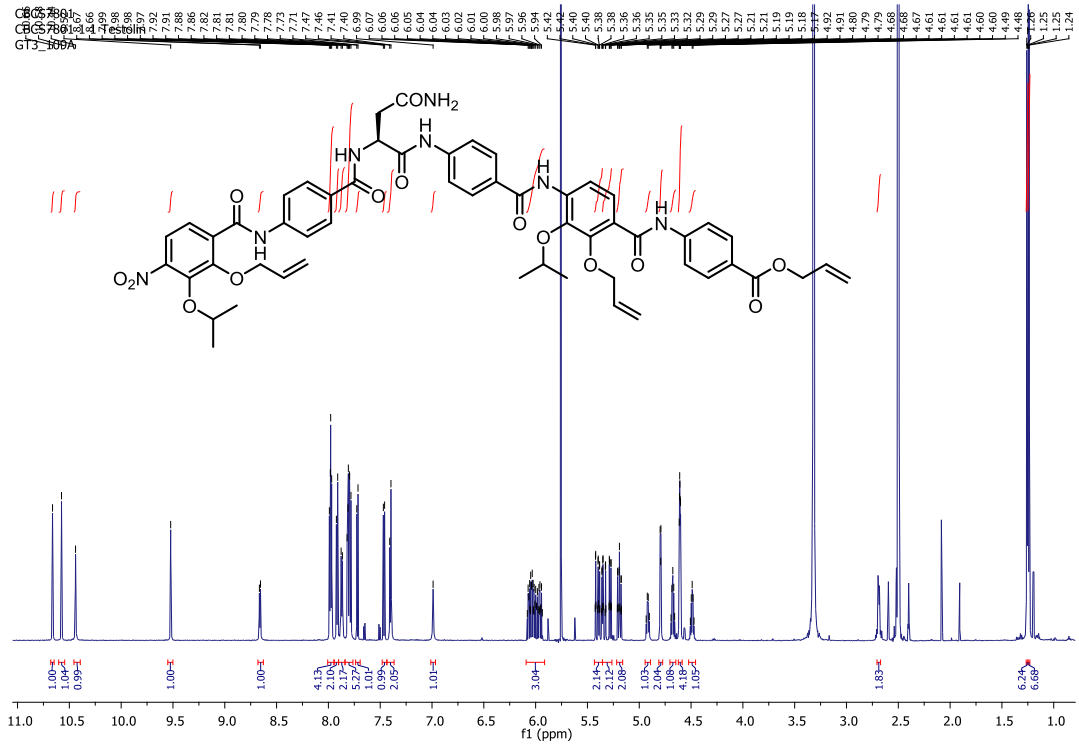
**(S)-4-(4-(4-(4-Amino-2-(4-(4-(4-nitrobenzamido)benzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



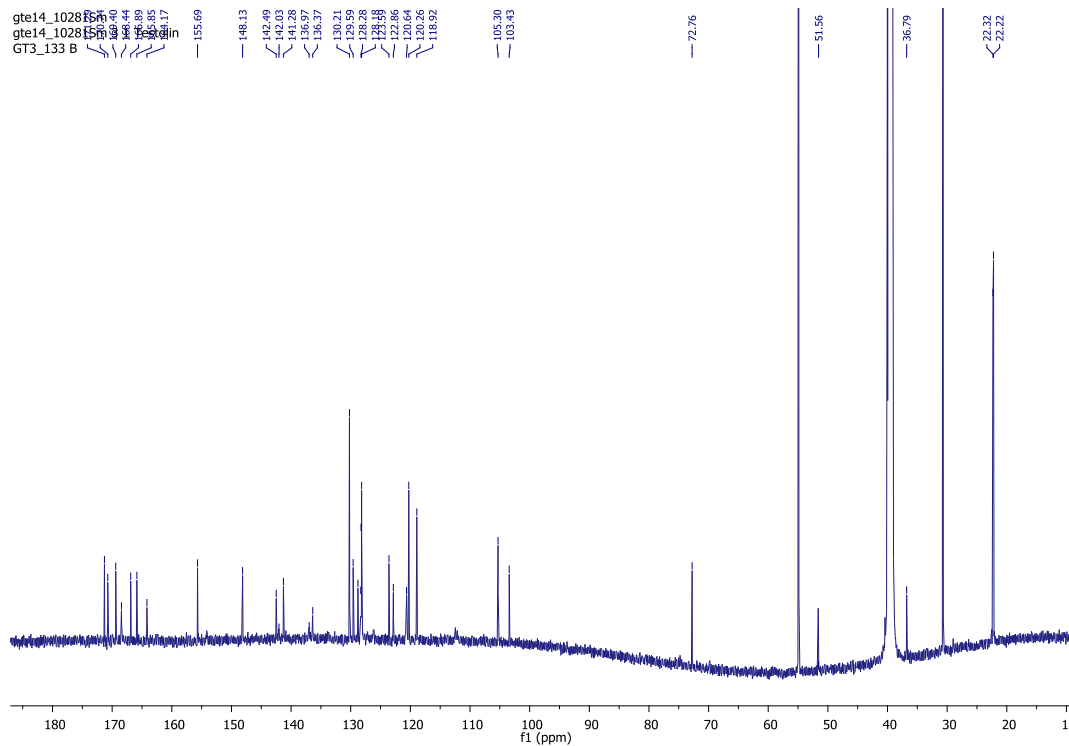
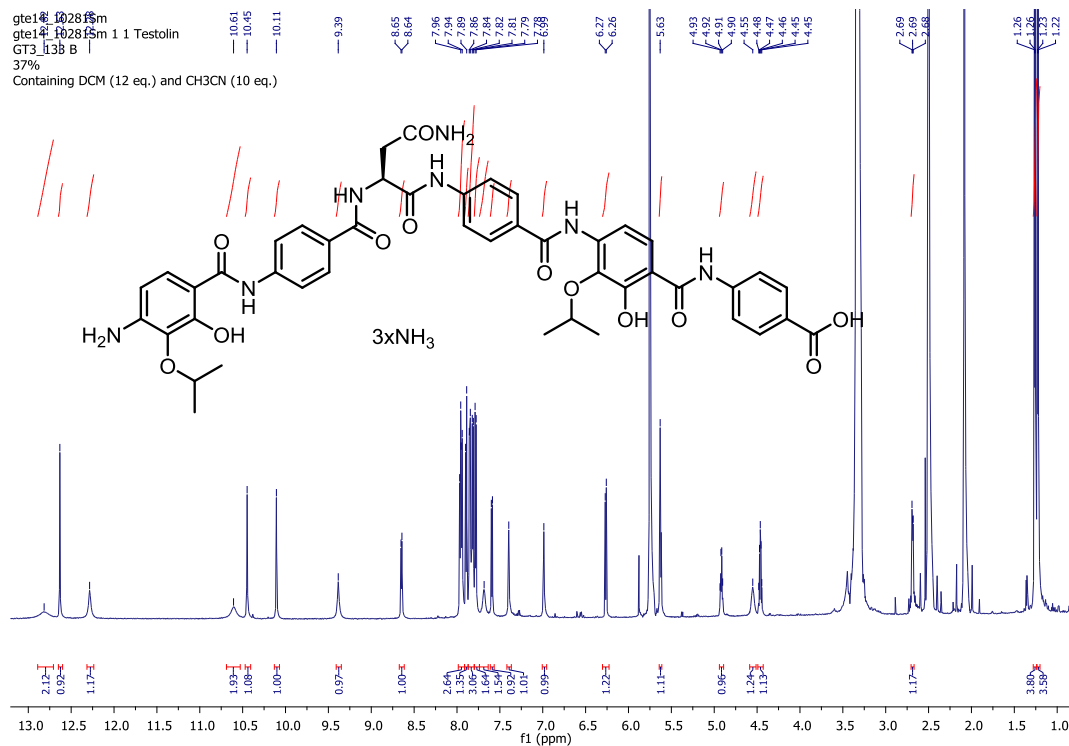
**(S)-4-(4-(4-(4-Amino-2-(4-(2-hydroxy-3-isopropoxy-4-nitrobenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



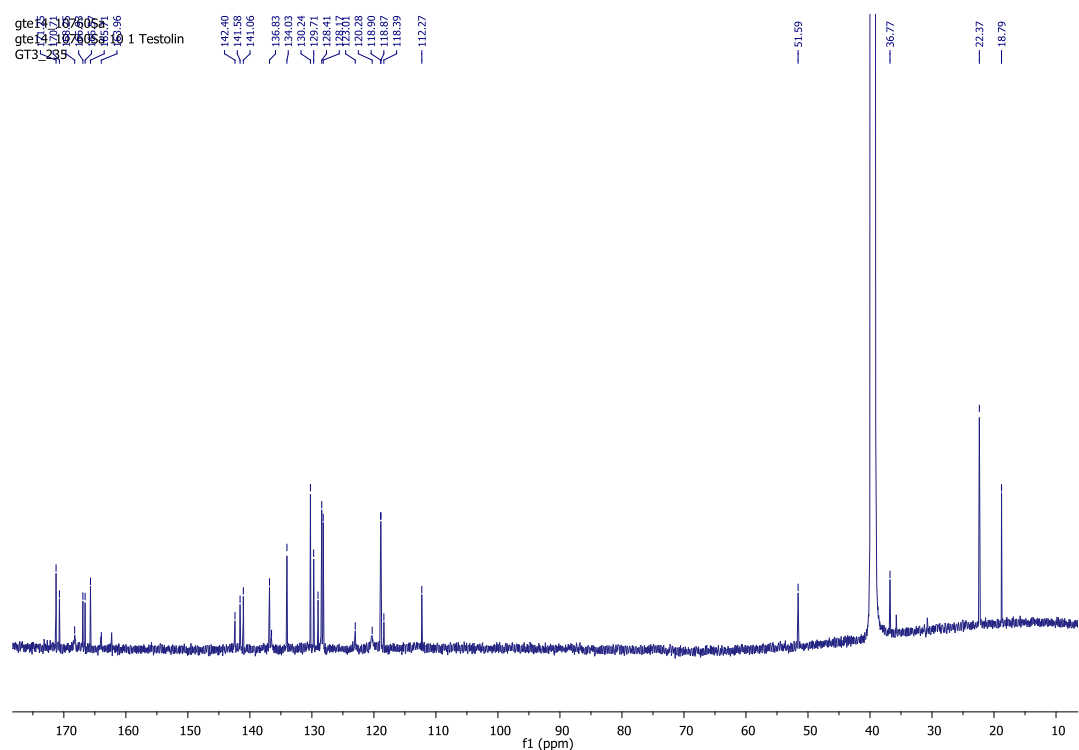
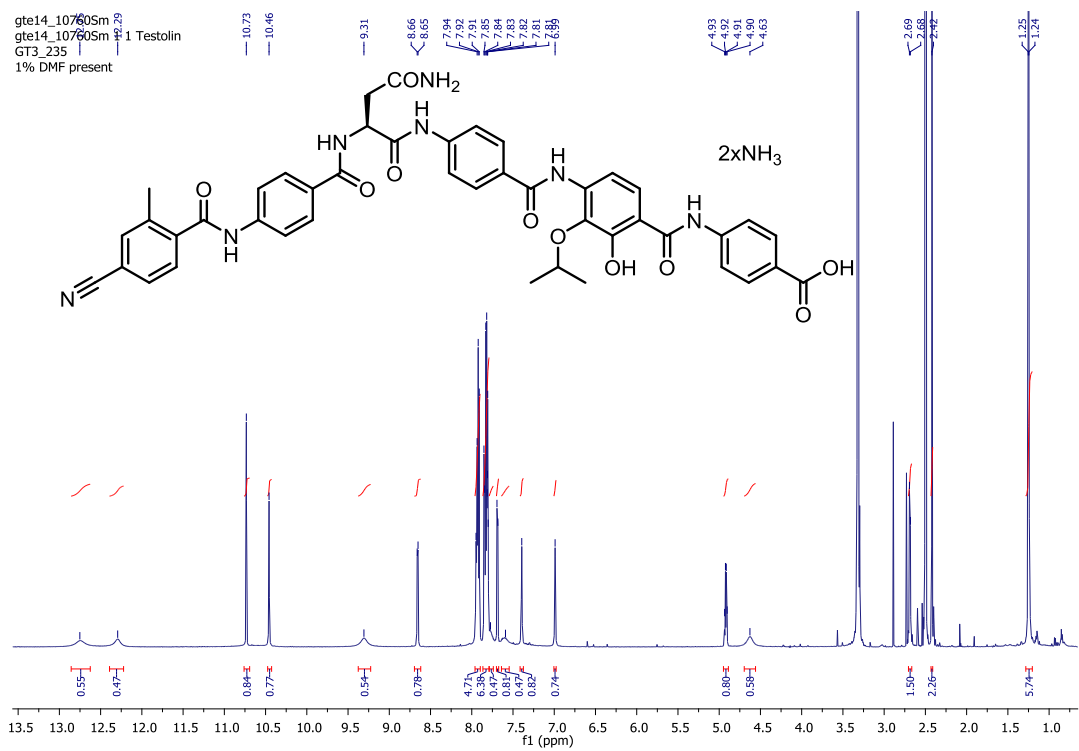
**Allyl protected intermediate:**



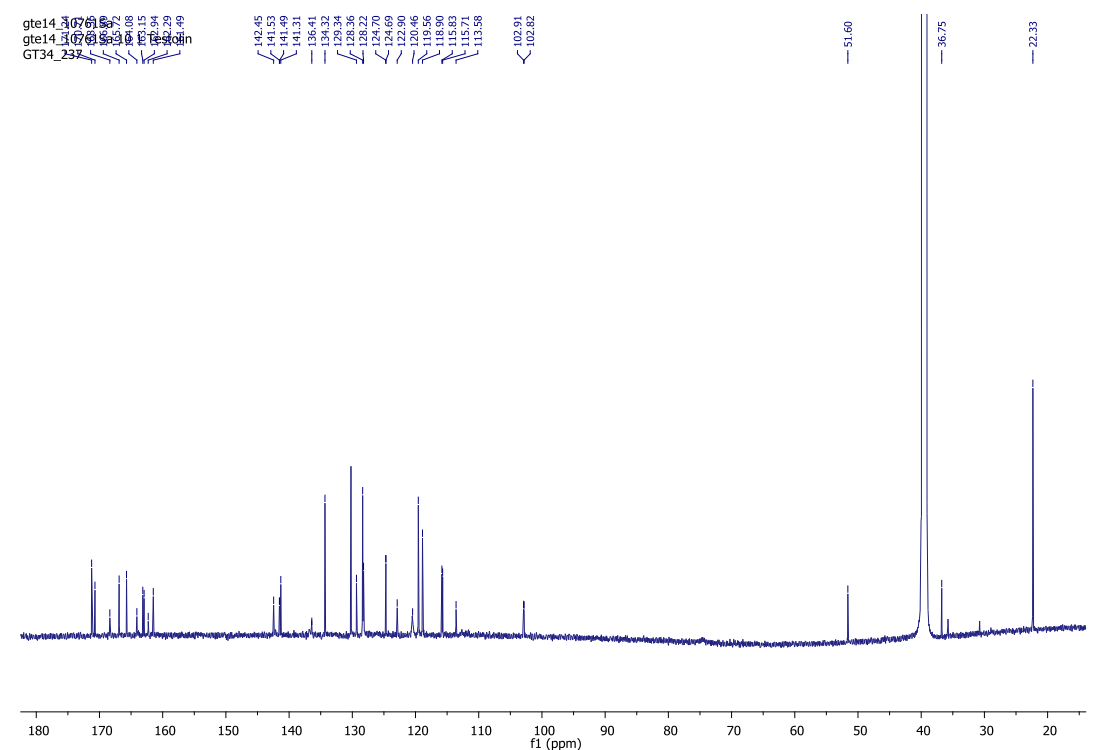
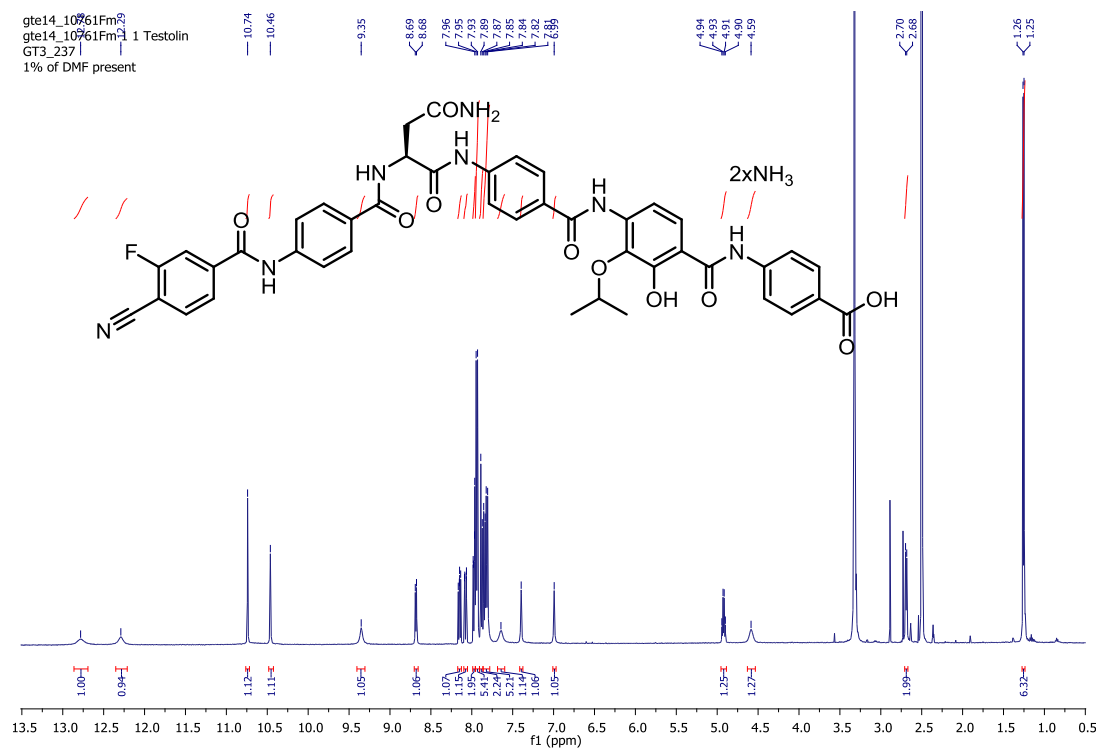
**(S)-4-(4-(4-(4-Amino-2-(4-(4-amino-2-hydroxy-3-isopropoxybenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



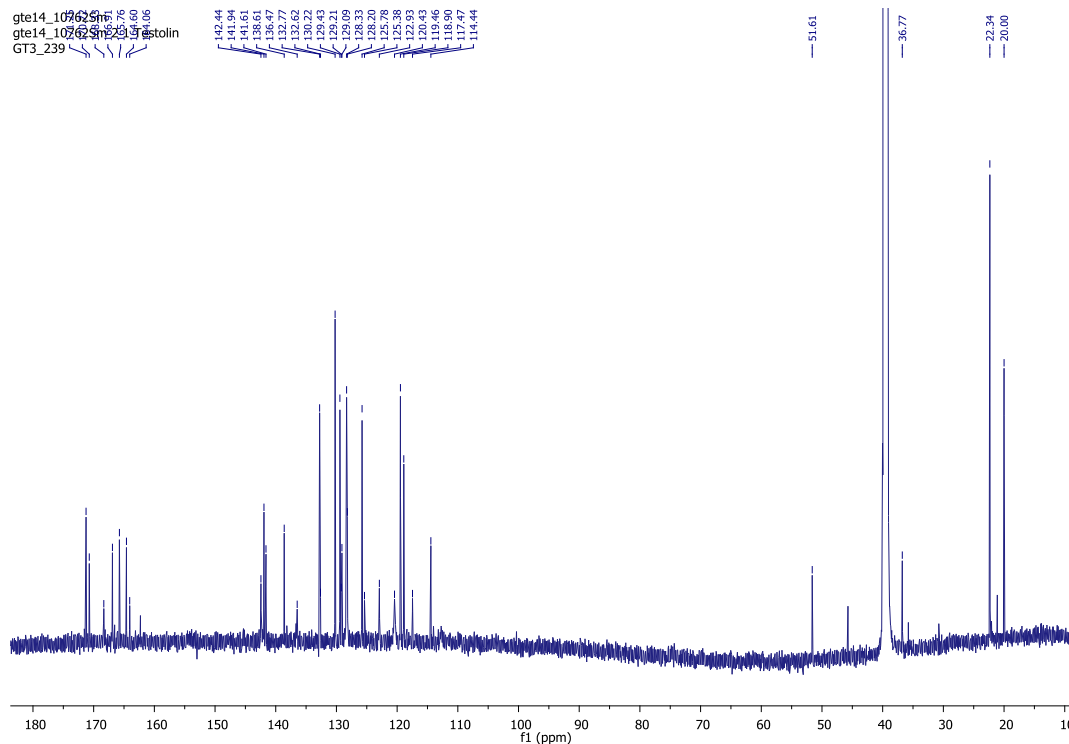
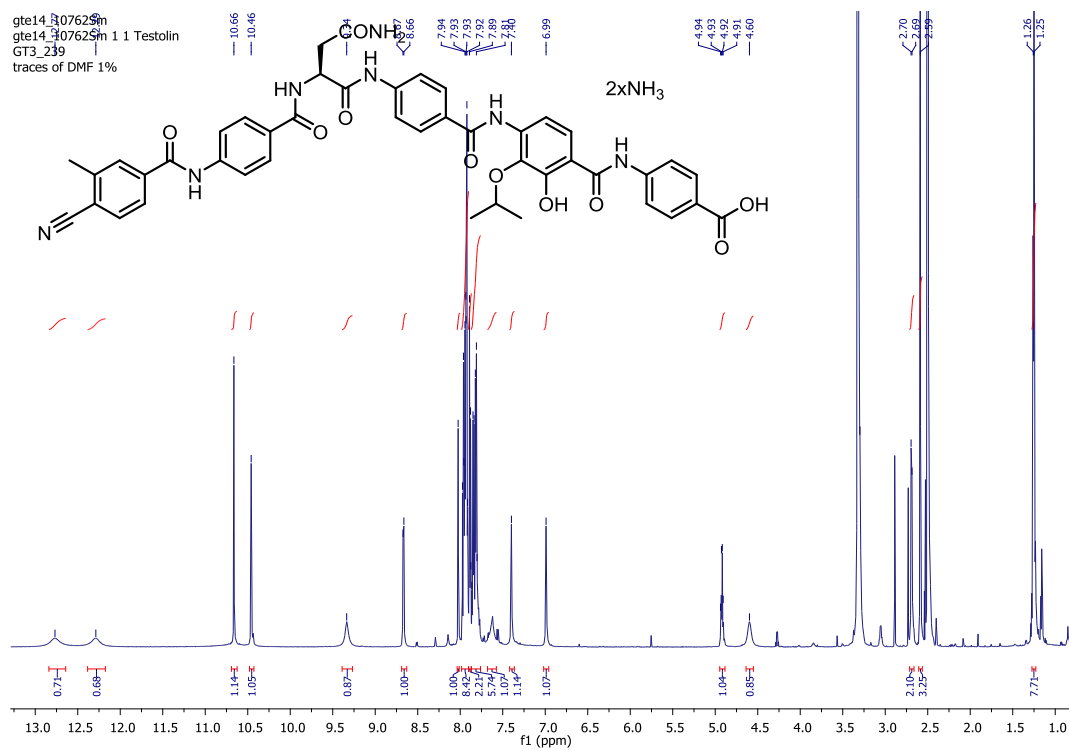
**(S)-4-(4-(4-(4-Amino-2-(4-(4-cyano-2-methylbenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



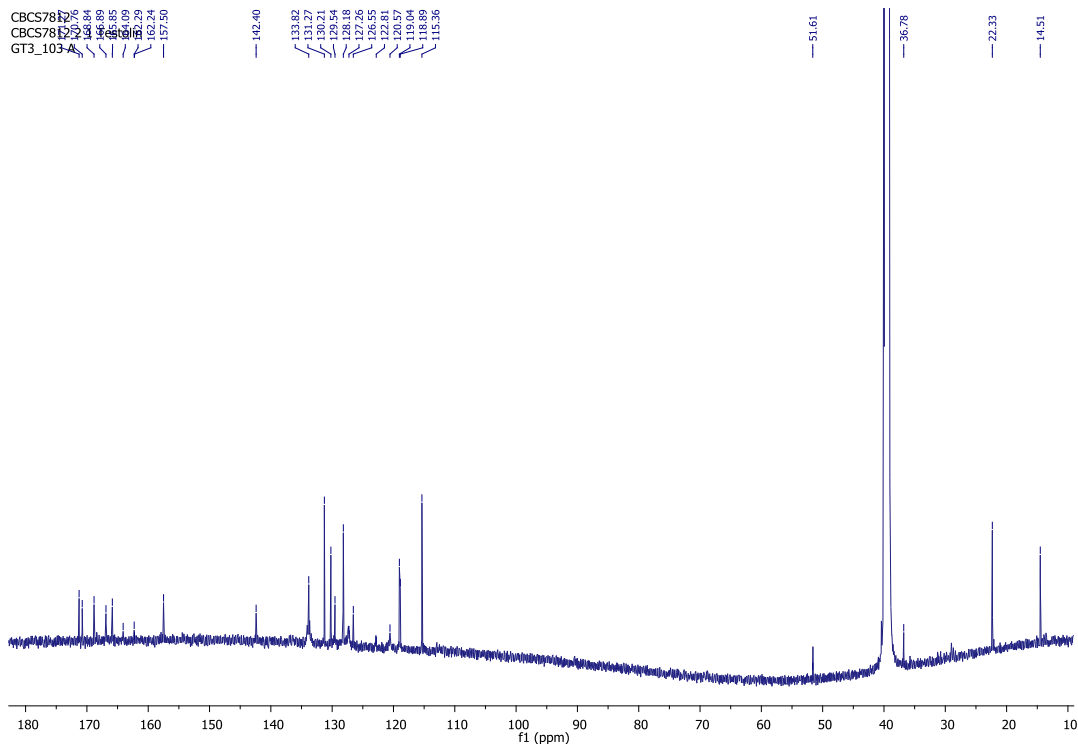
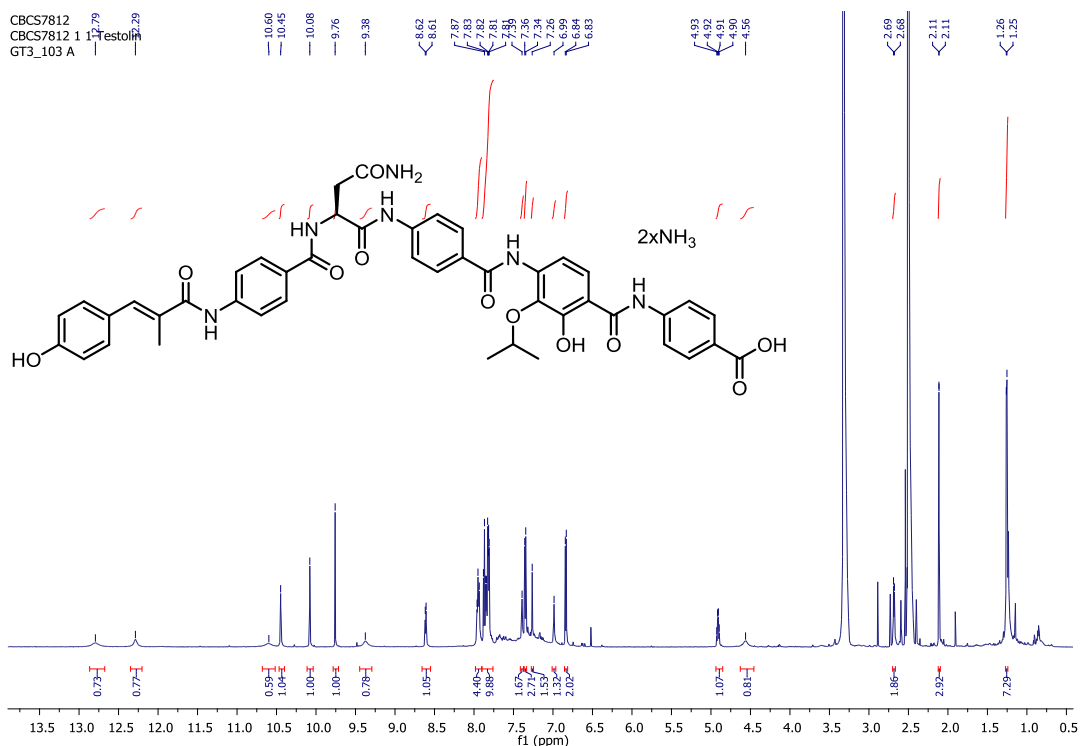
**(S)-4-(4-(4-(4-Amino-2-(4-(4-cyano-3-fluorobenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



**(S)-4-(4-(4-(4-Amino-2-(4-(4-cyano-3-methylbenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

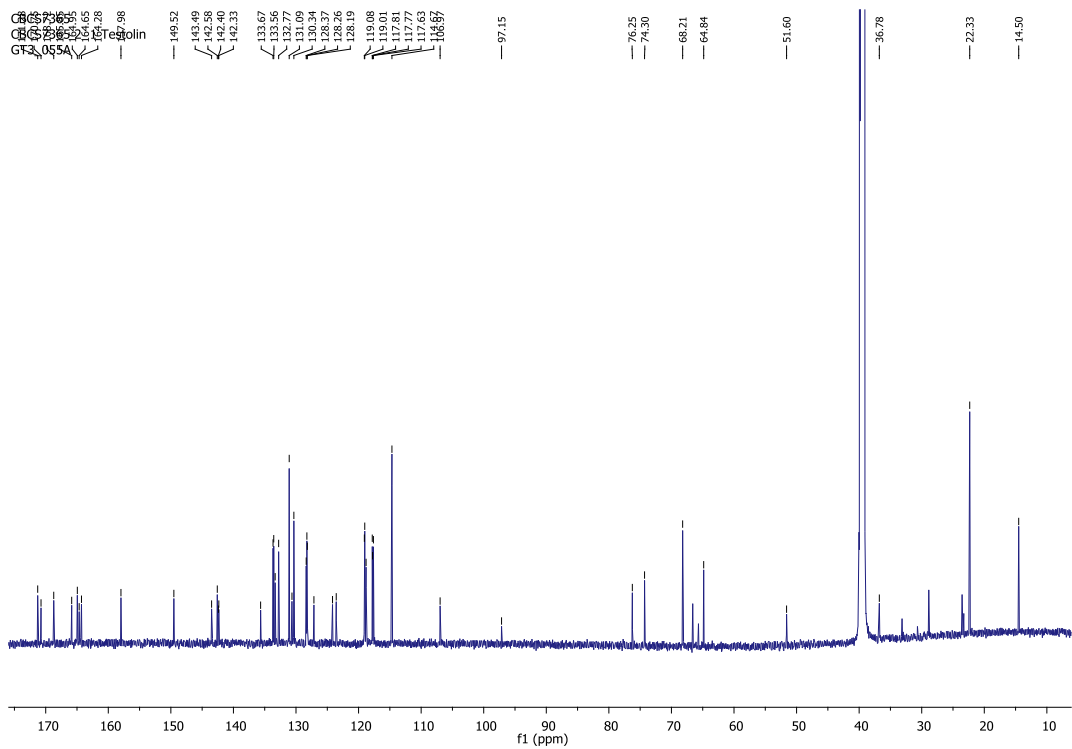
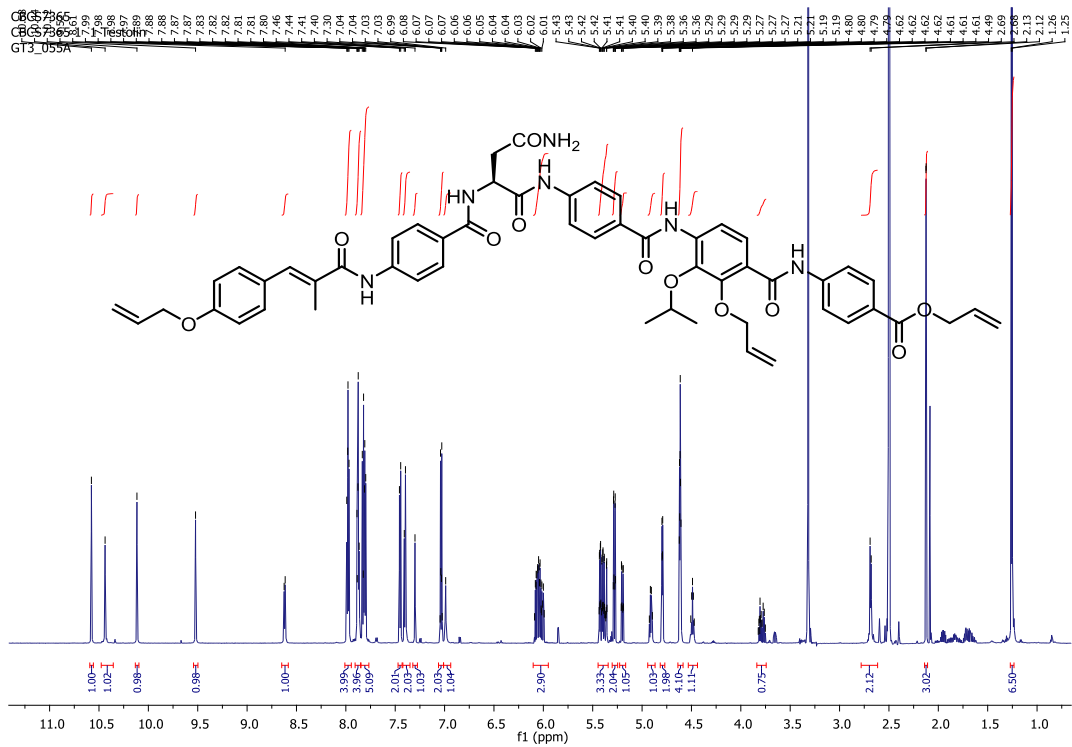


**(S,E)-4-(4-(4-(4-Amino-2-(4-(3-(4-hydroxyphenyl)-2-methylacrylamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

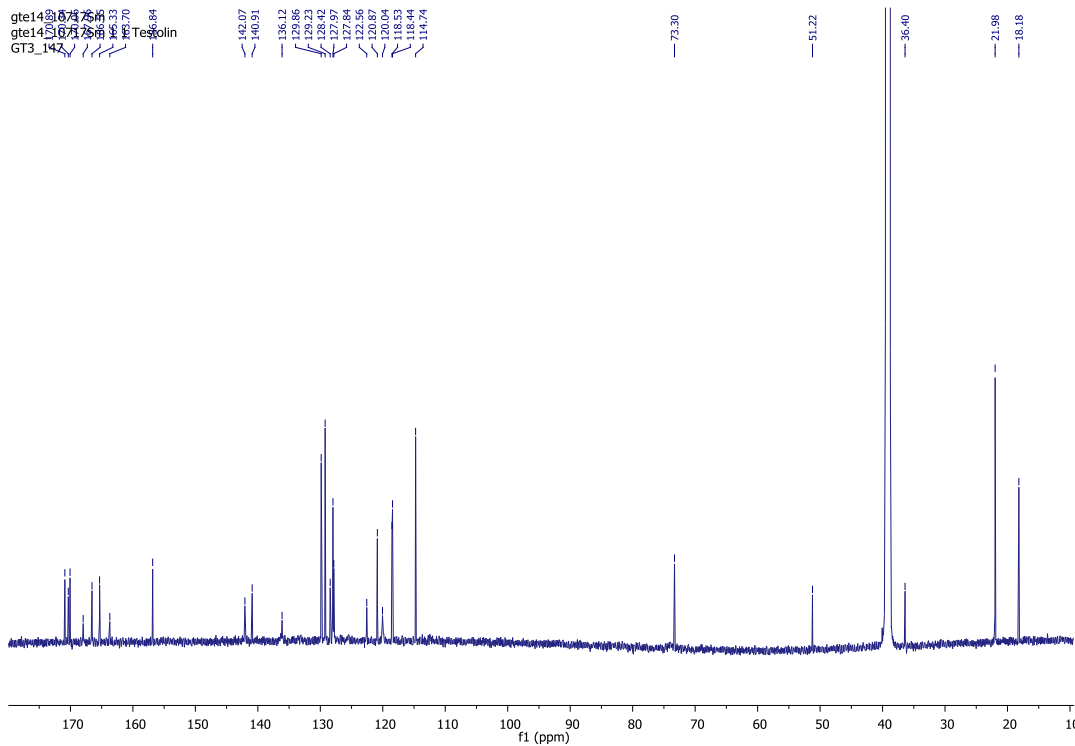
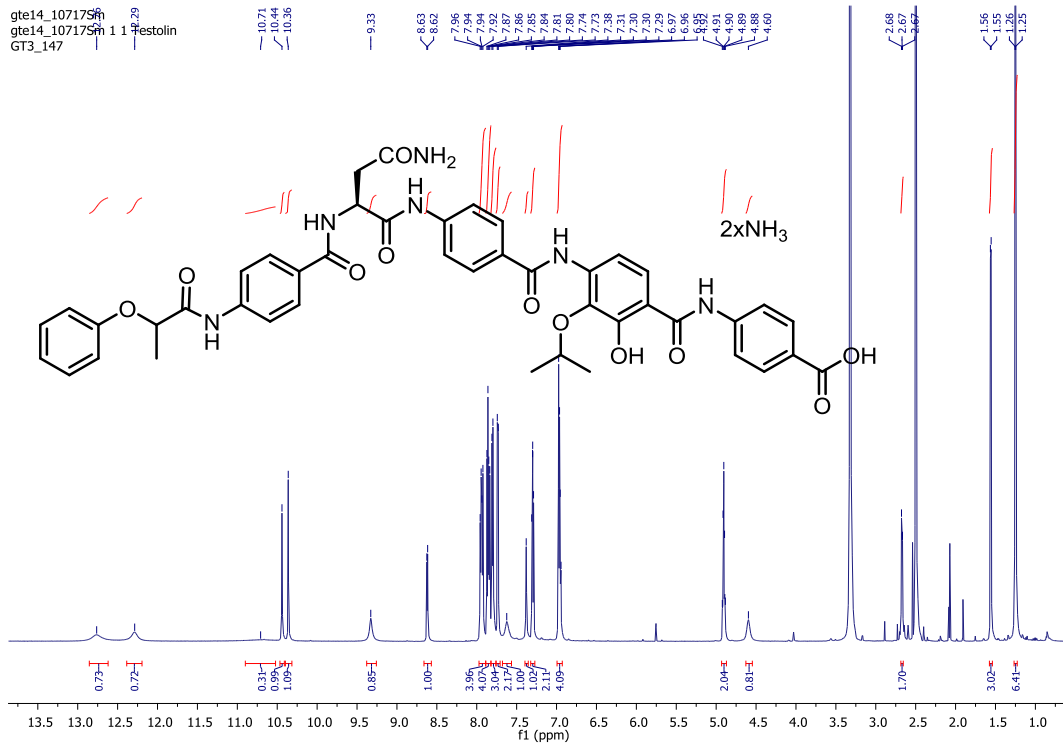




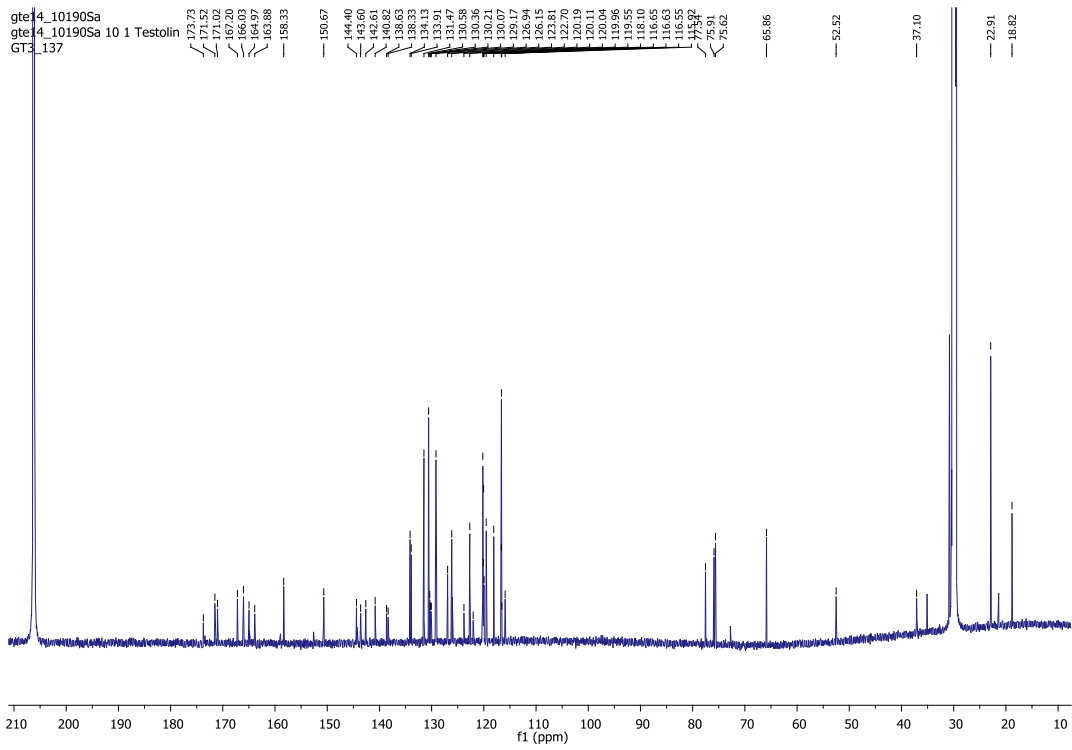
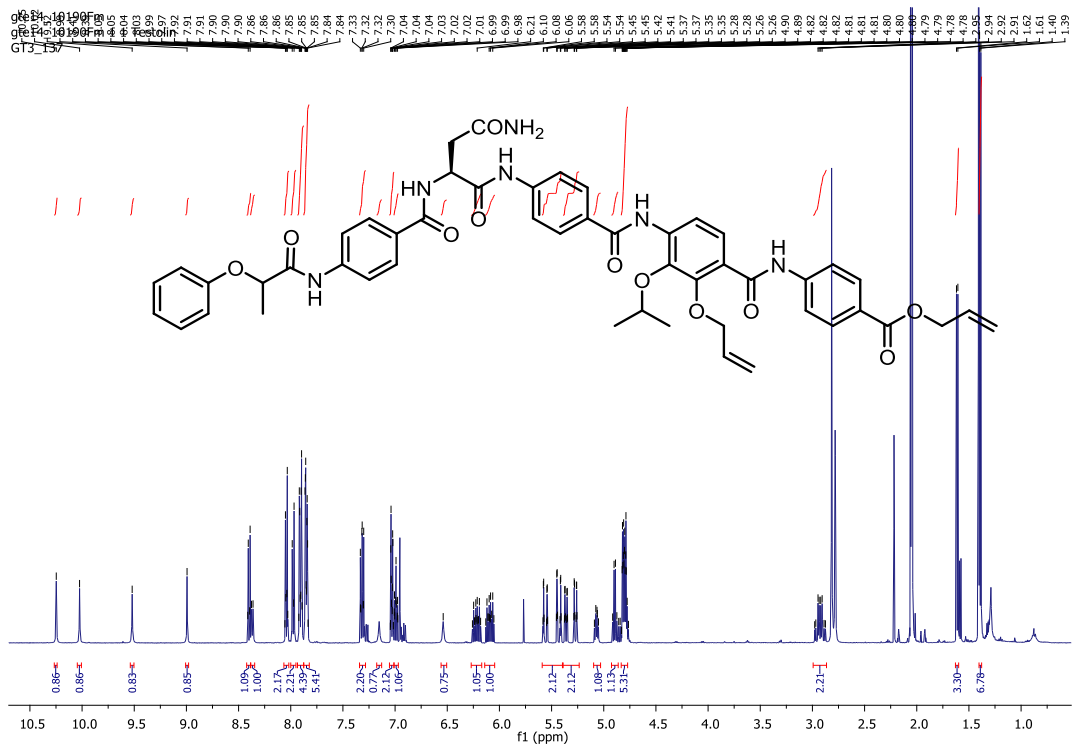
# Allyl protected intermediate:



**4-(4-(4-((2S)-4-Amino-4-oxo-2-(4-(2-phenoxypropanamido)benzamido)butanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

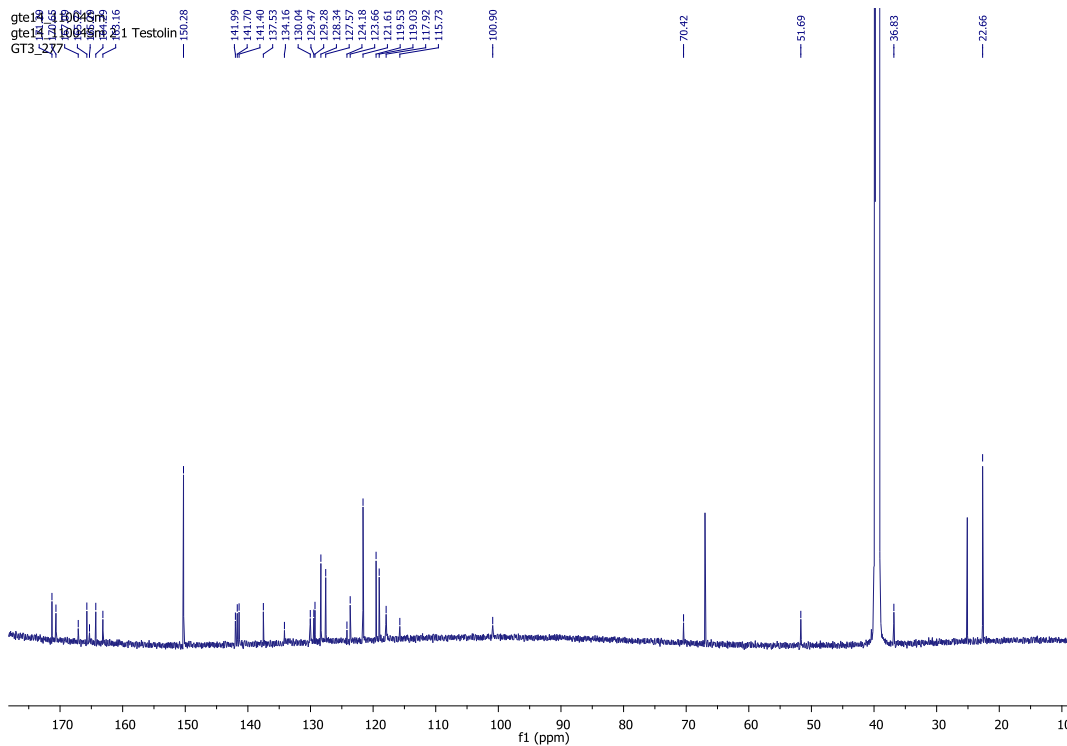
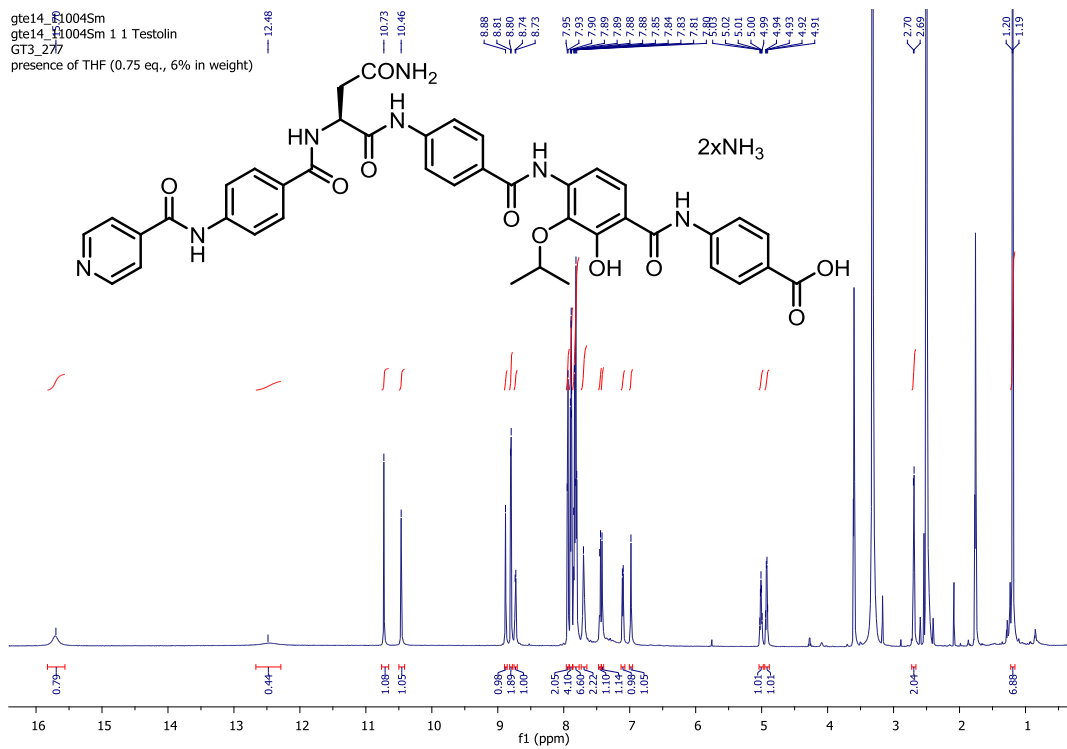


# Allyl protected intermediate:



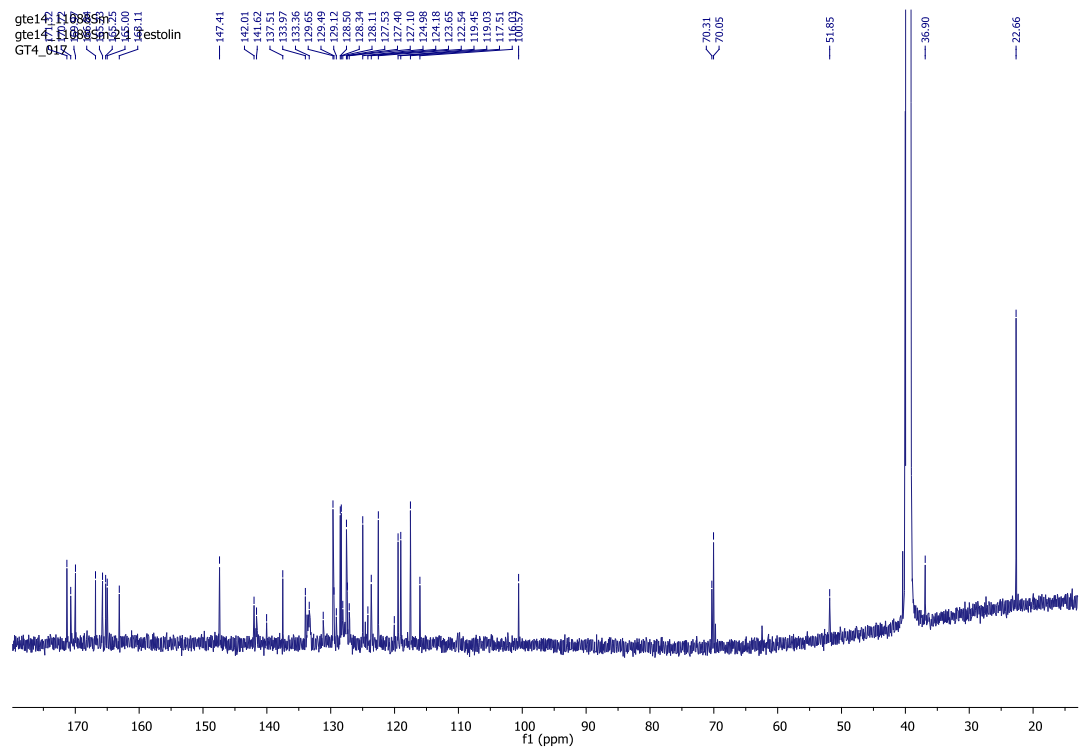
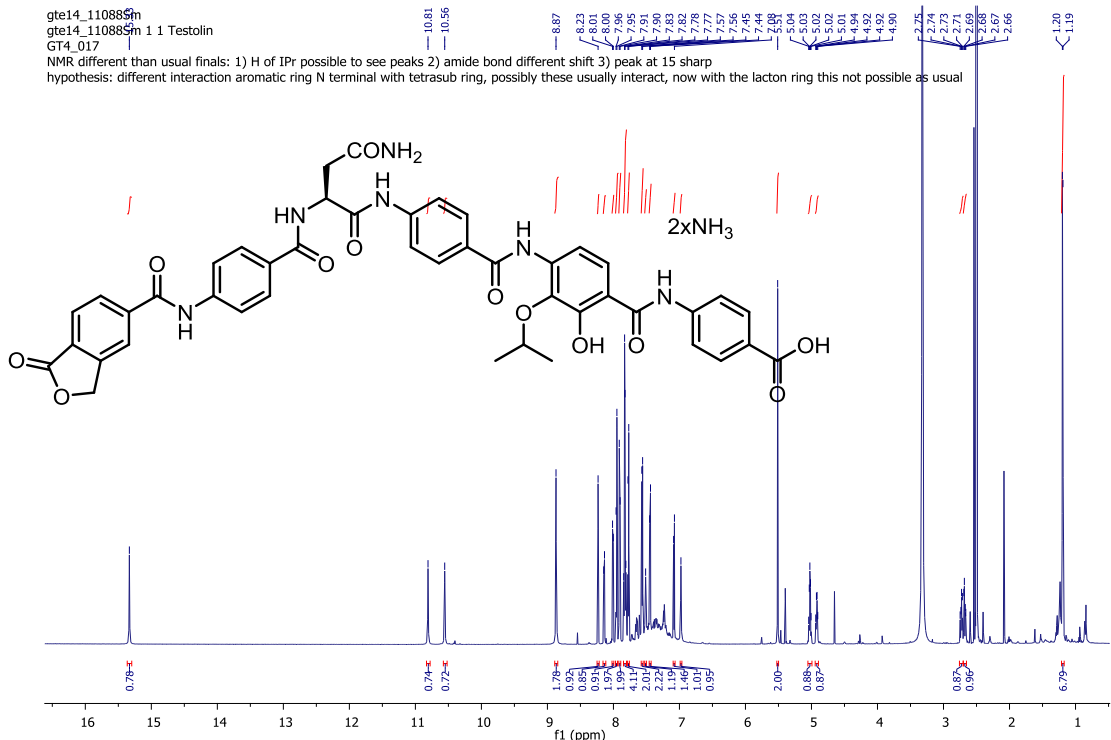
**(S)-4-(4-(4-(4-Amino-2-(4-(isonicotinamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

gte14\_110045m  
 gte14\_110045m 1 1 Testolin  
 GT3\_277  
 presence of THF (0.75 eq., 6% in weight)

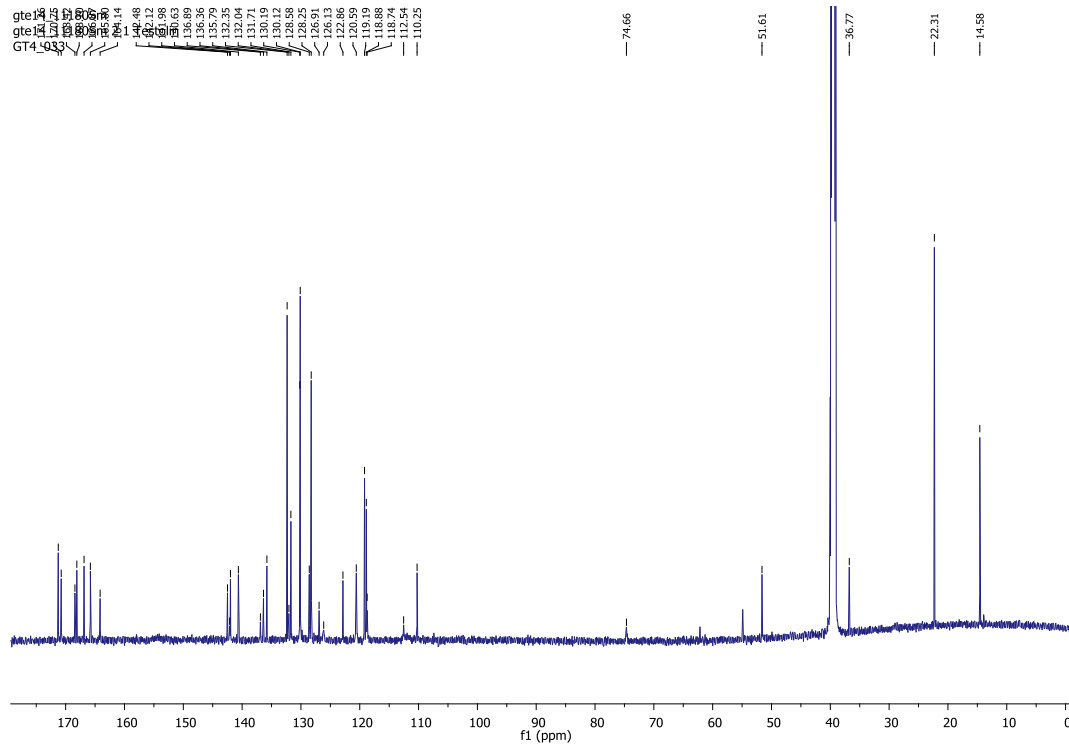
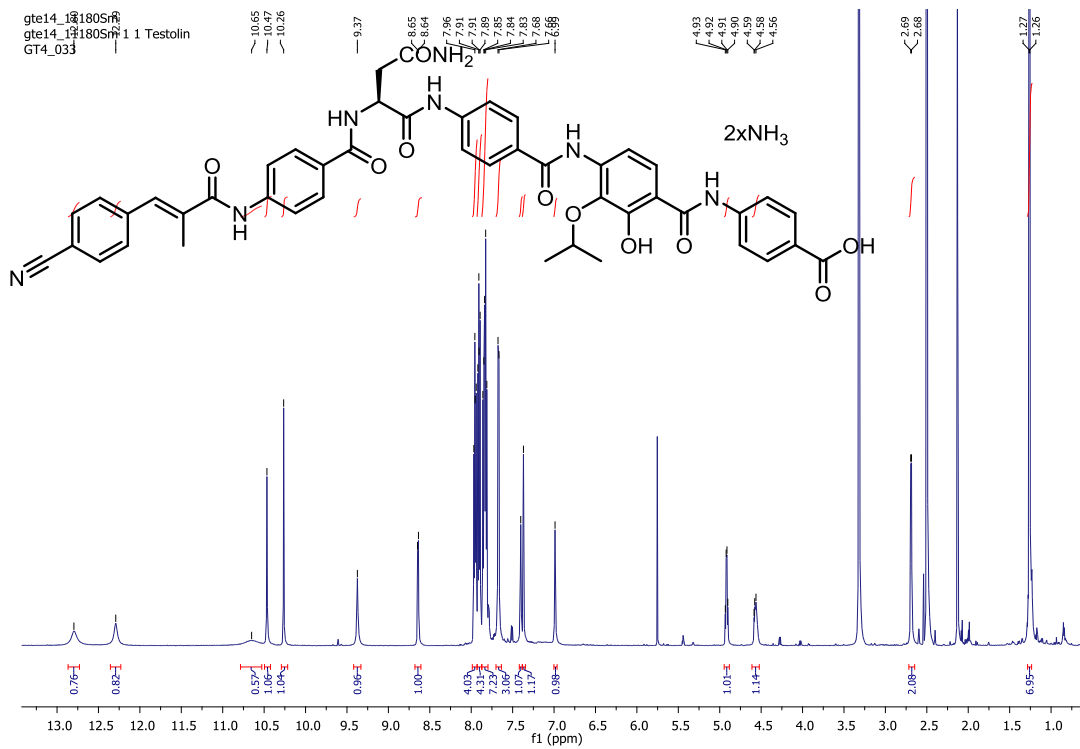




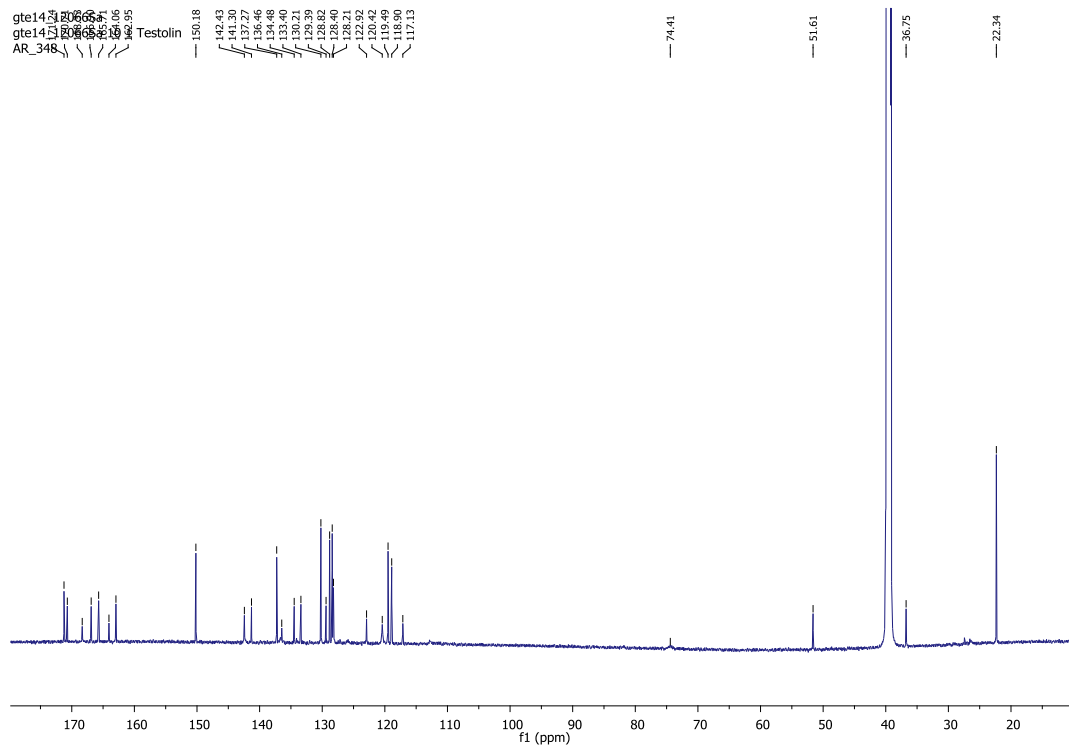
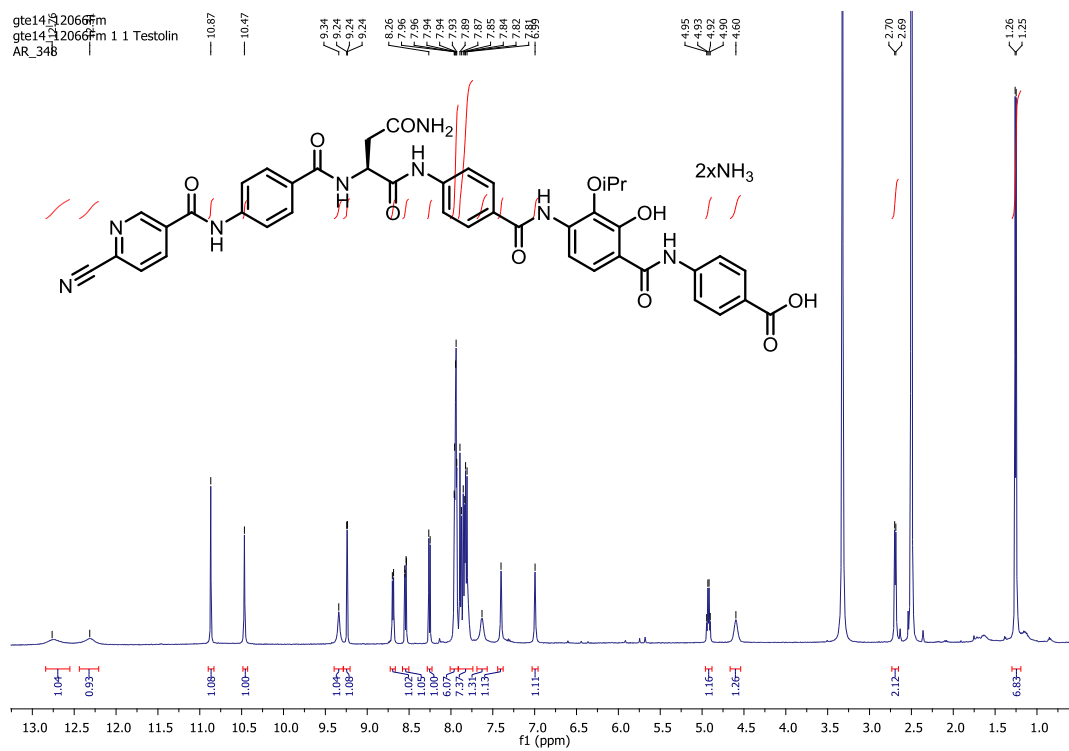
**(S)-4-(4-(4-(4-Amino-4-oxo-2-(4-(1-oxo-1,3-dihydroisobenzofuran-5-carboxamido)benzamido)butanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



**(S,E)-4-(4-(4-(4-Amino-2-(4-(3-(4-cyanophenyl)-2-methylacrylamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

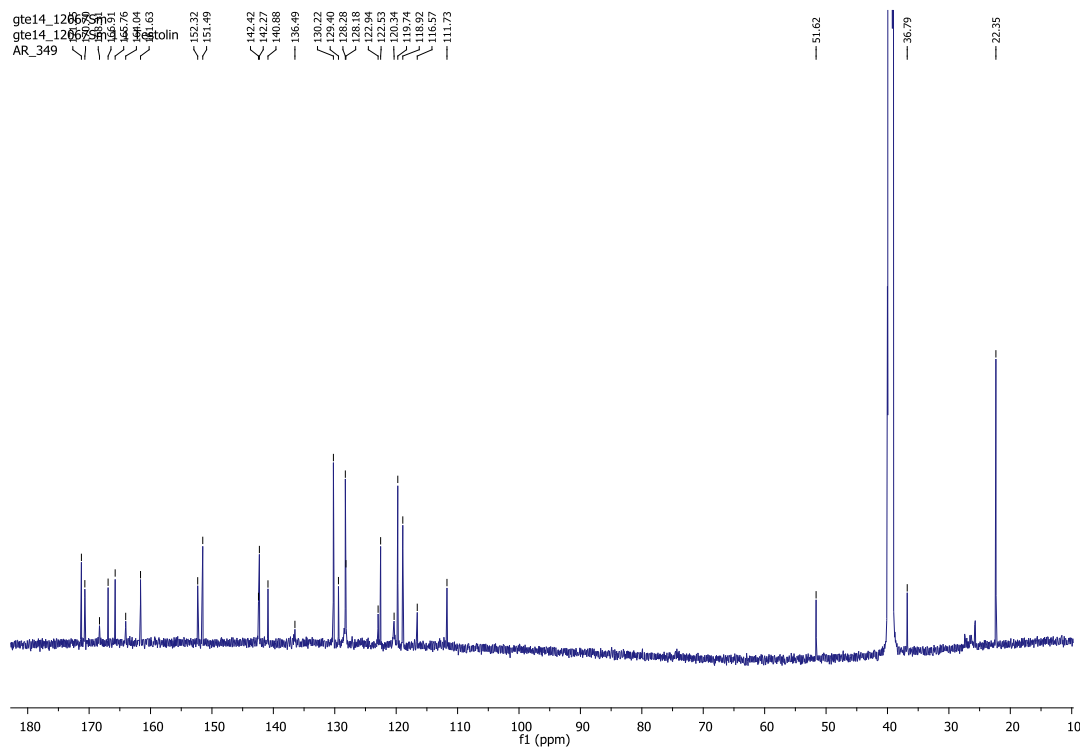
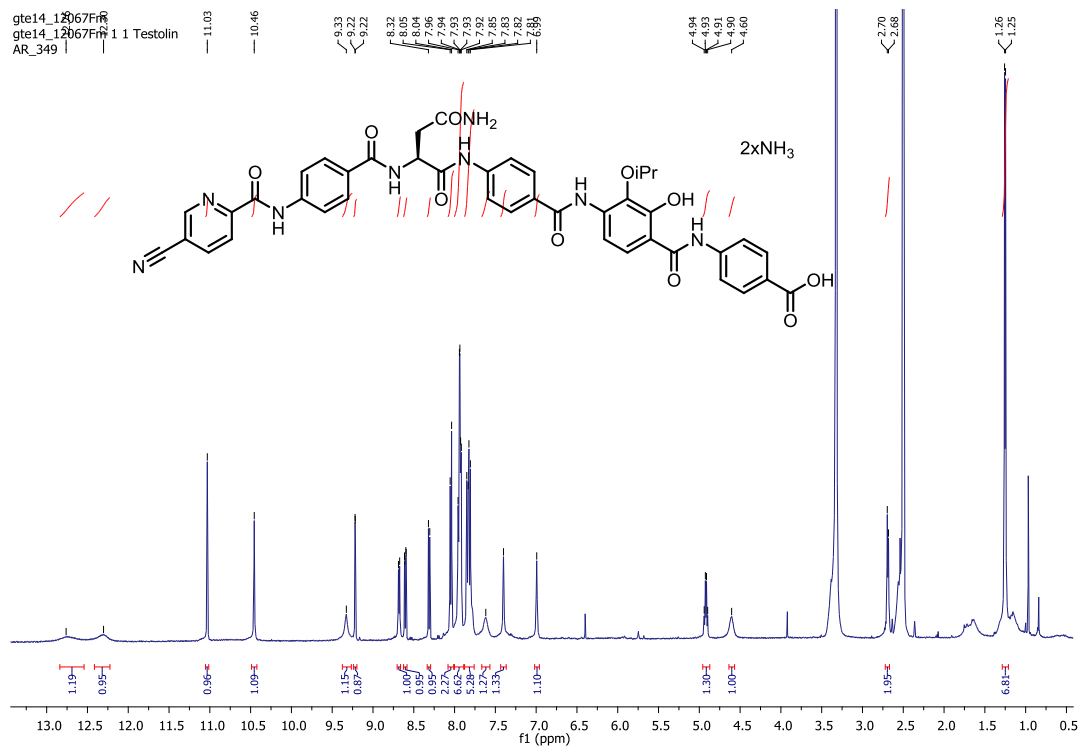


**(S)-4-(4-(4-(4-Amino-2-(4-(6-cyanonicotinamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

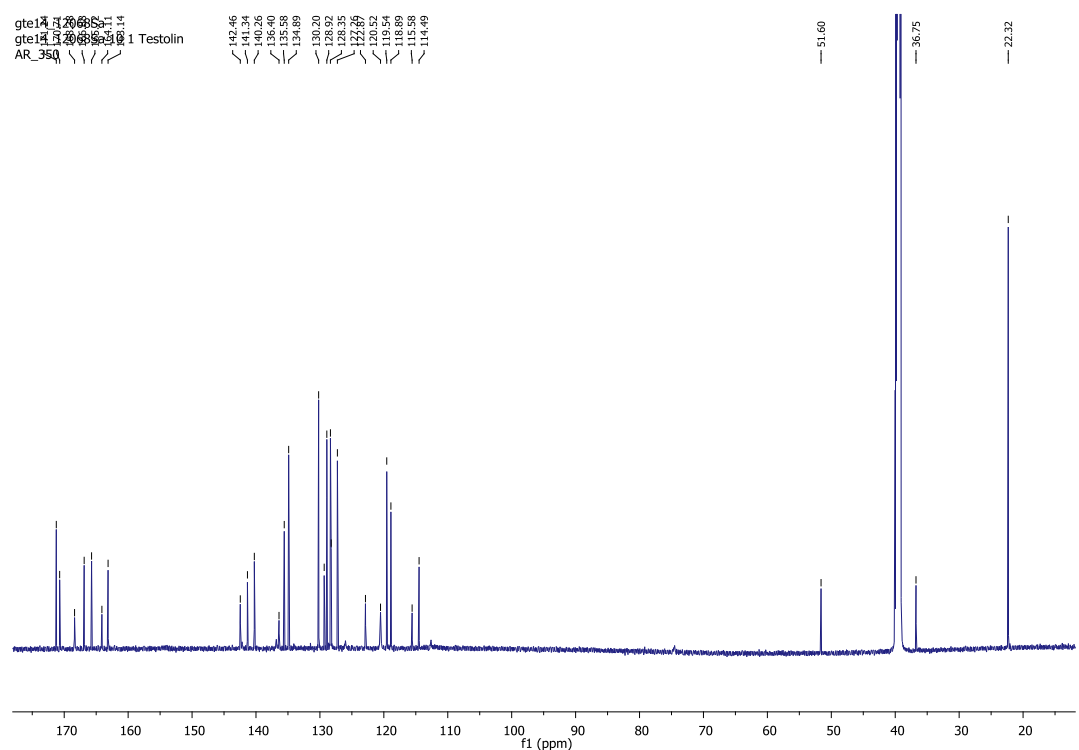
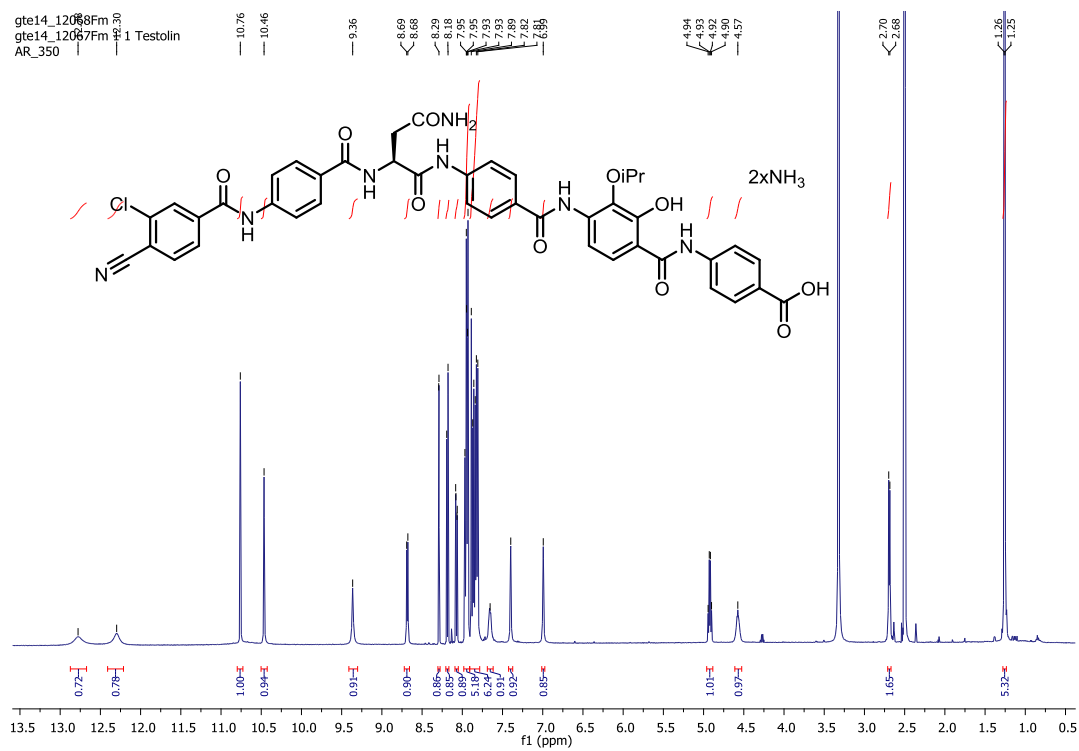




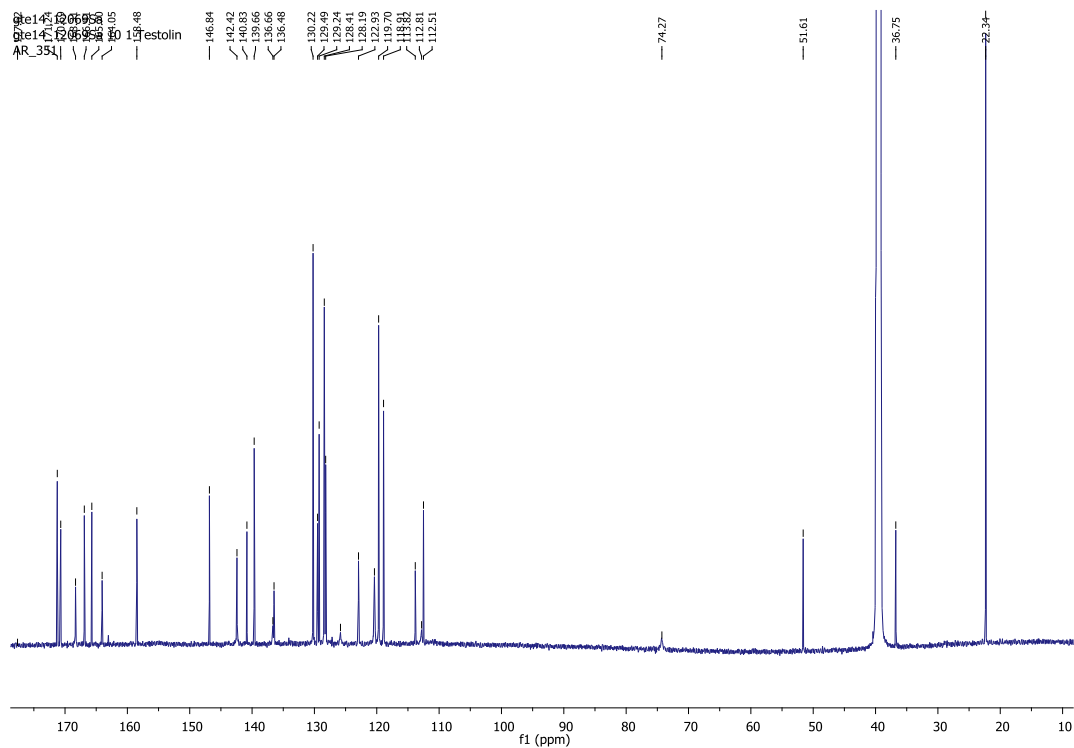
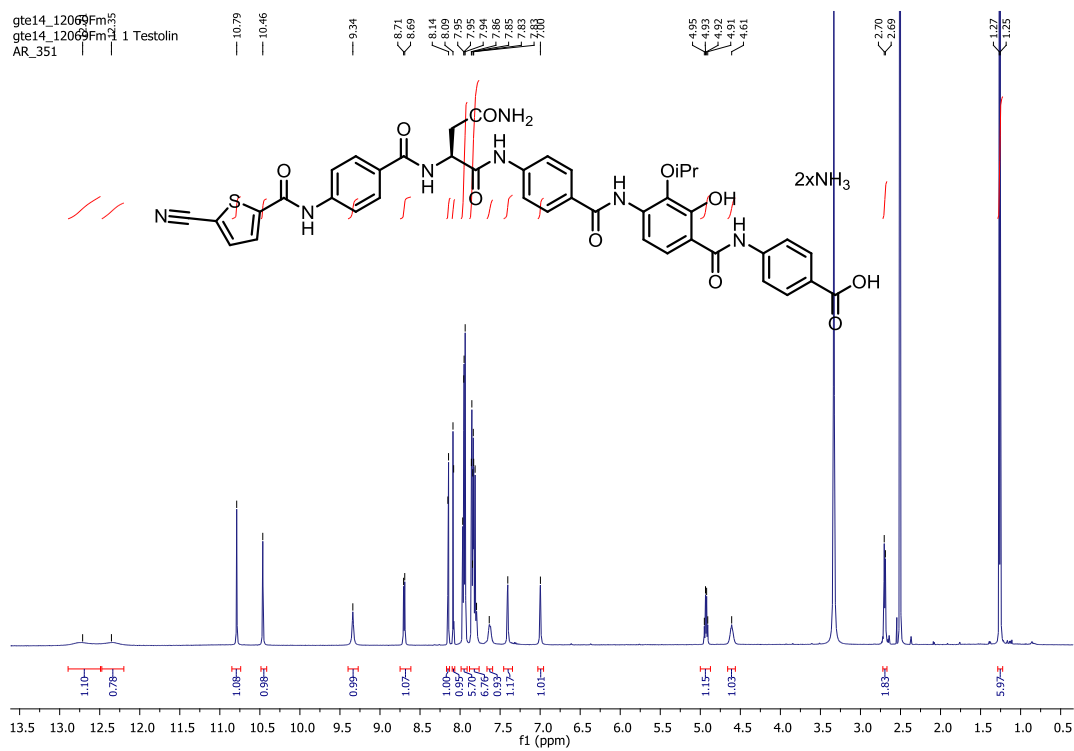
**(S)-4-(4-(4-(4-Amino-2-(4-(5-cyanopicolinamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



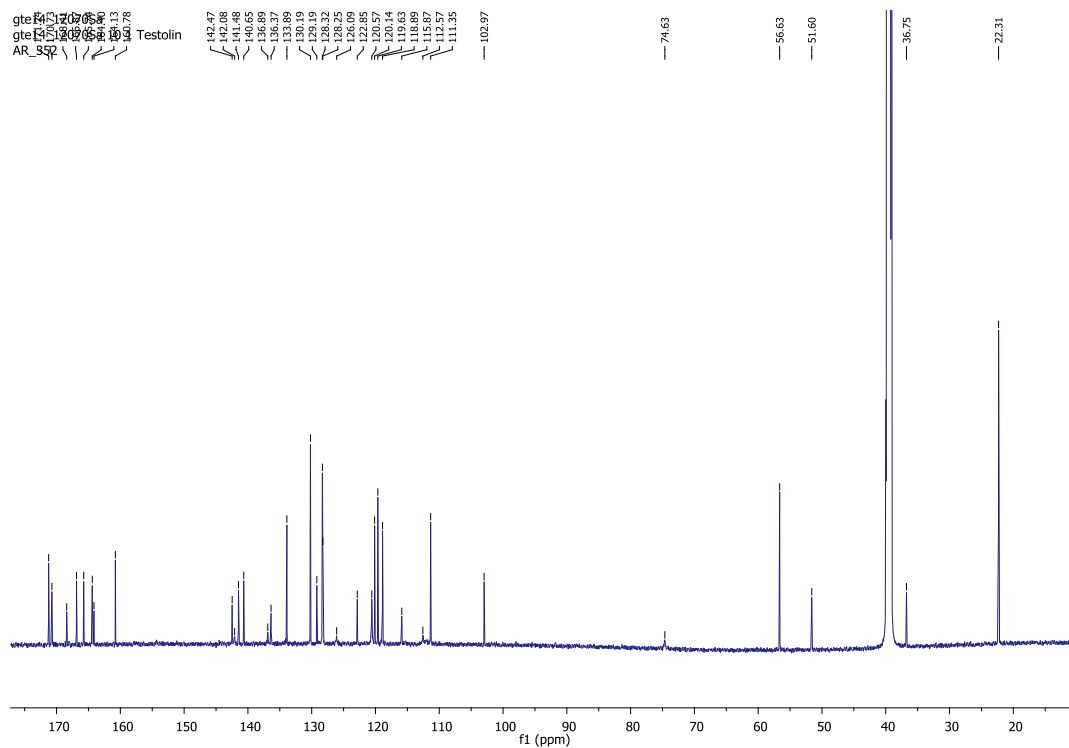
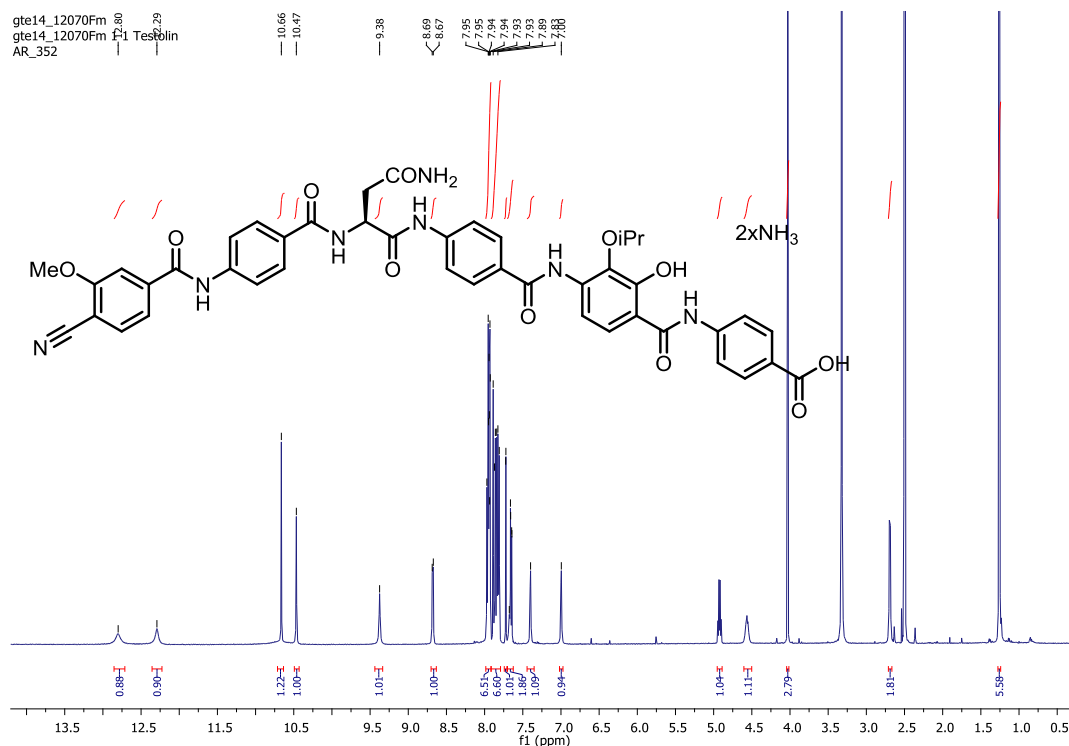
**(S)-4-(4-(4-(4-Amino-2-(4-(3-chloro-4-cyanobenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



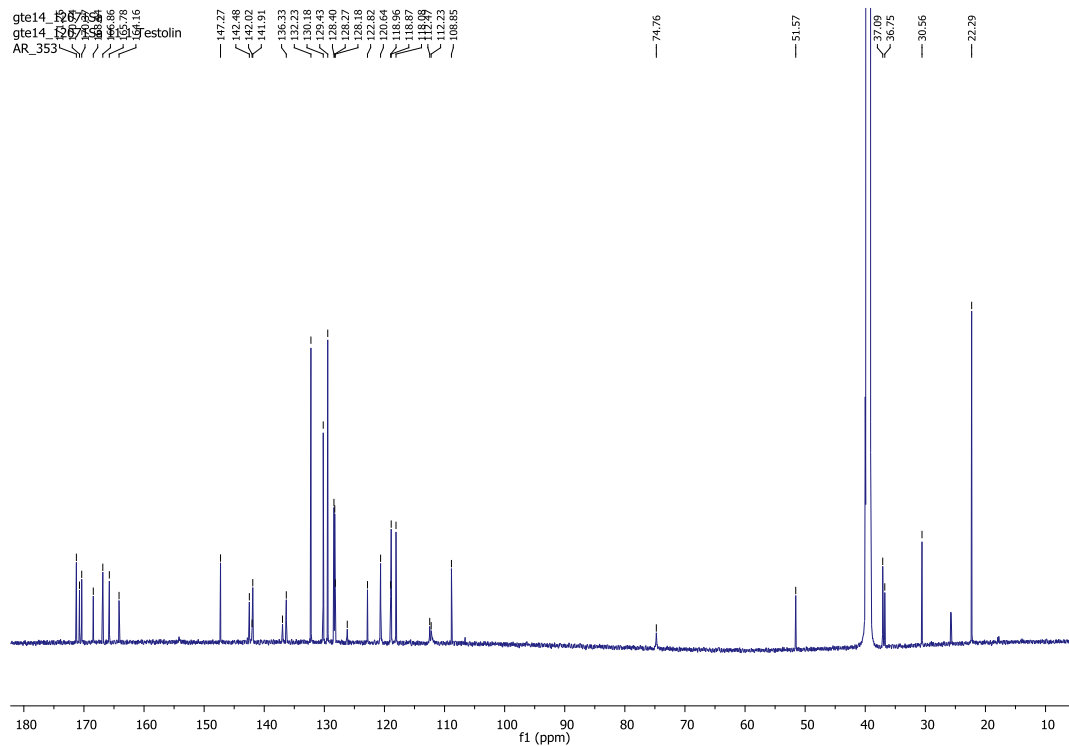
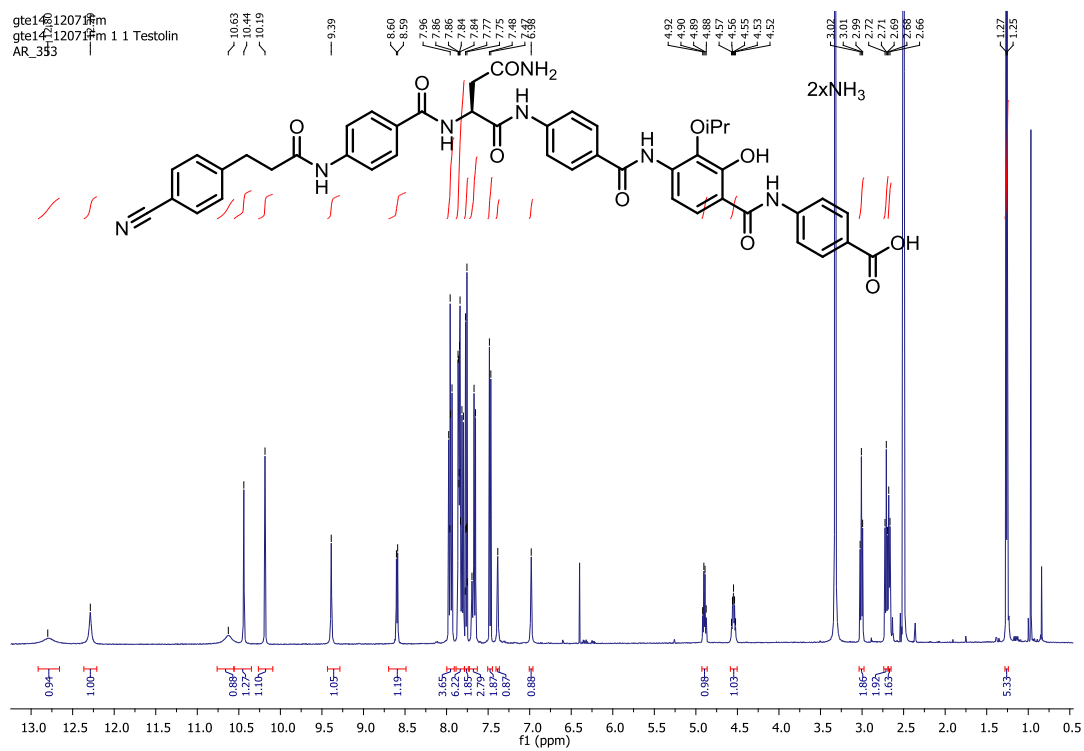
**(S)-4-(4-(4-(4-Amino-2-(4-(5-cyanothiophene-2-carboxamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



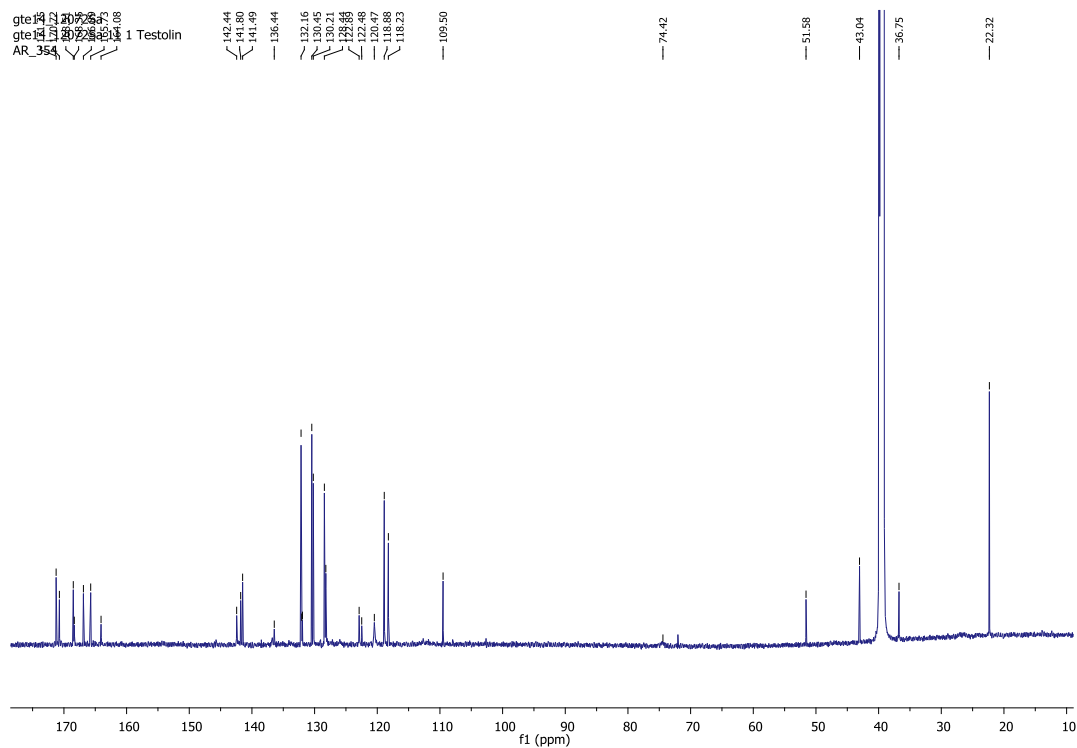
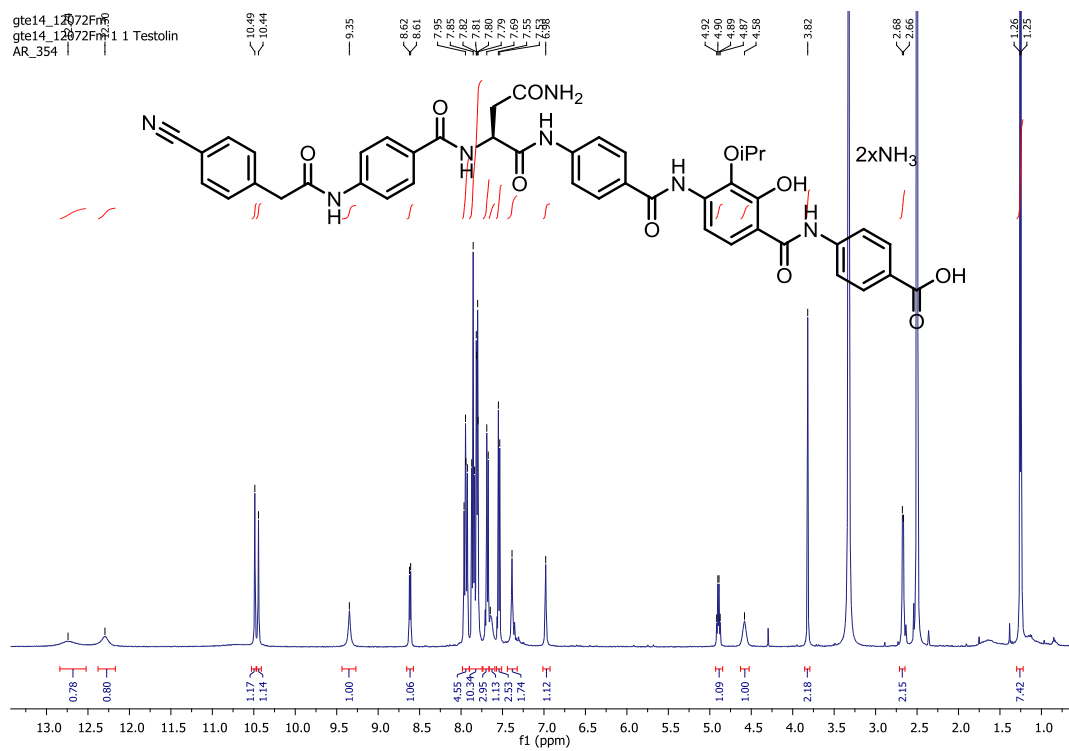
**(S)-4-(4-(4-(4-Amino-2-(4-(4-cyano-3-methoxybenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



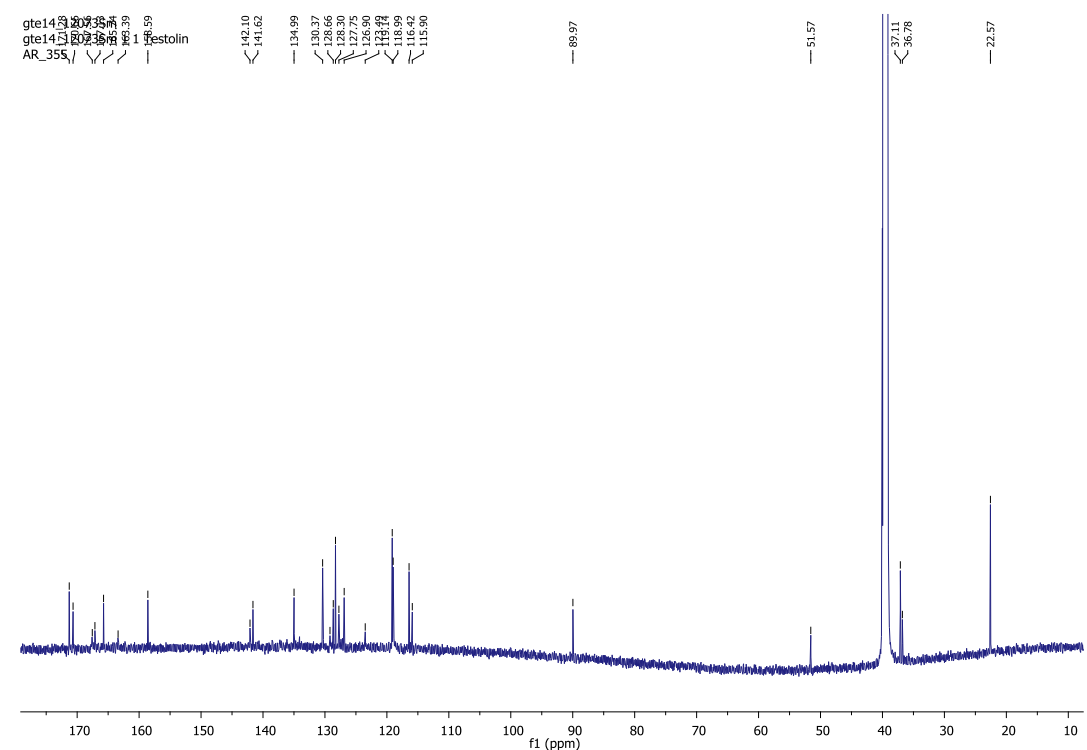
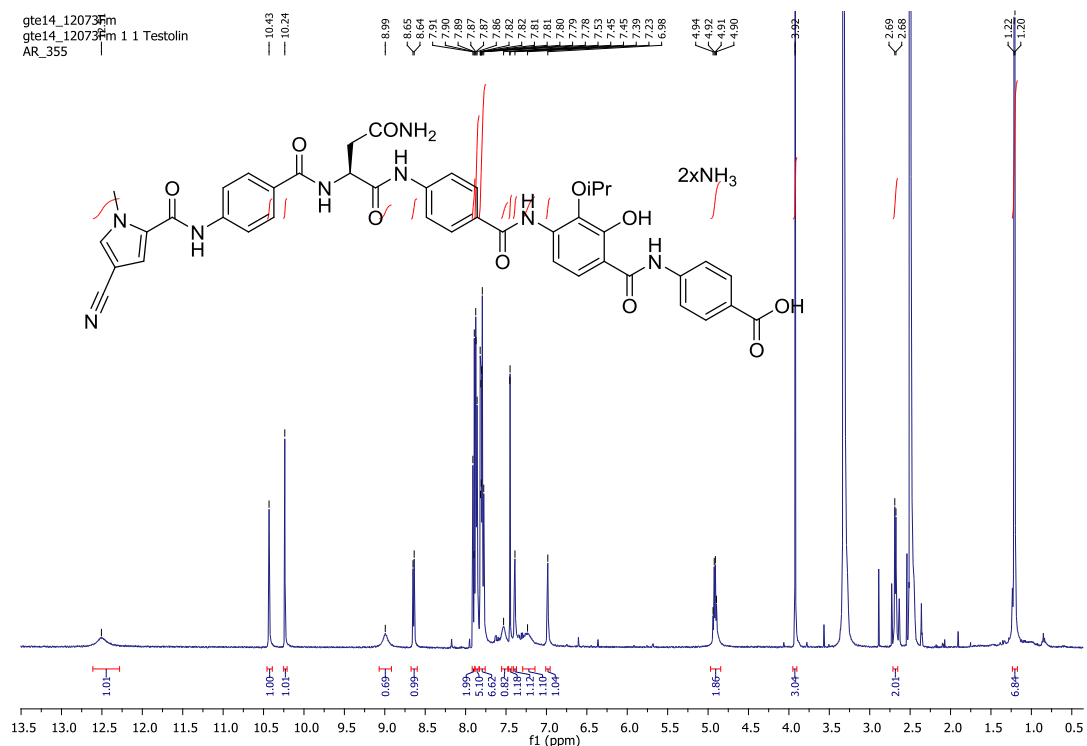
**(S)-4-(4-(4-(4-Amino-2-(4-(3-(4-cyanophenyl)propanamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



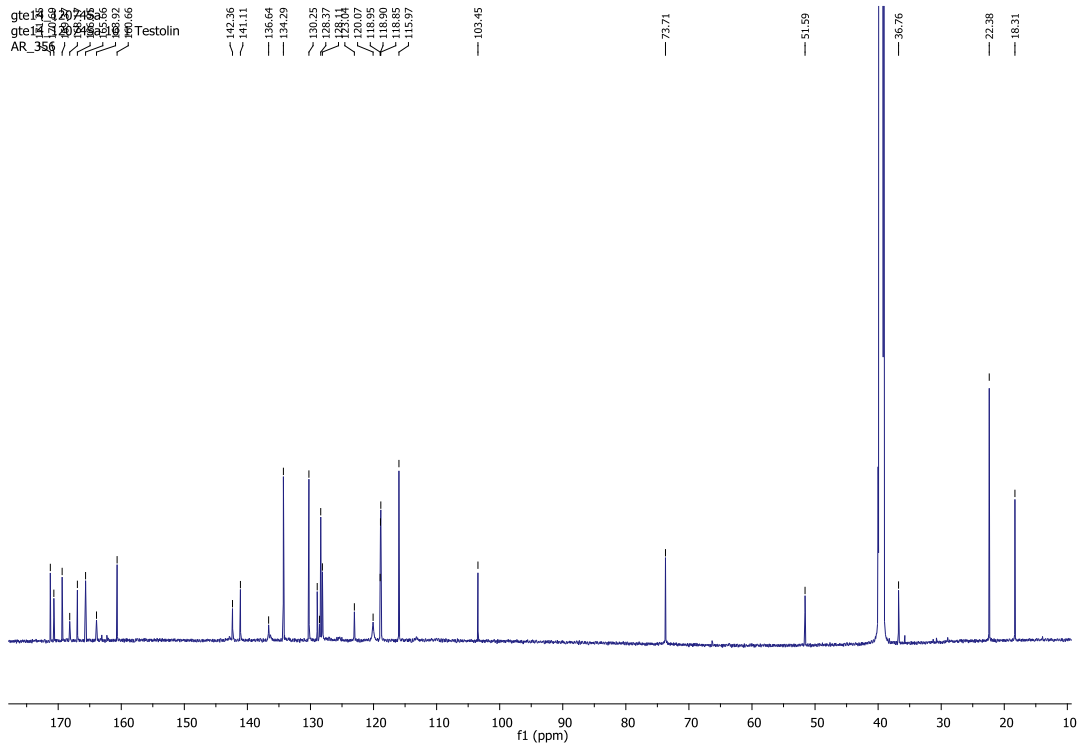
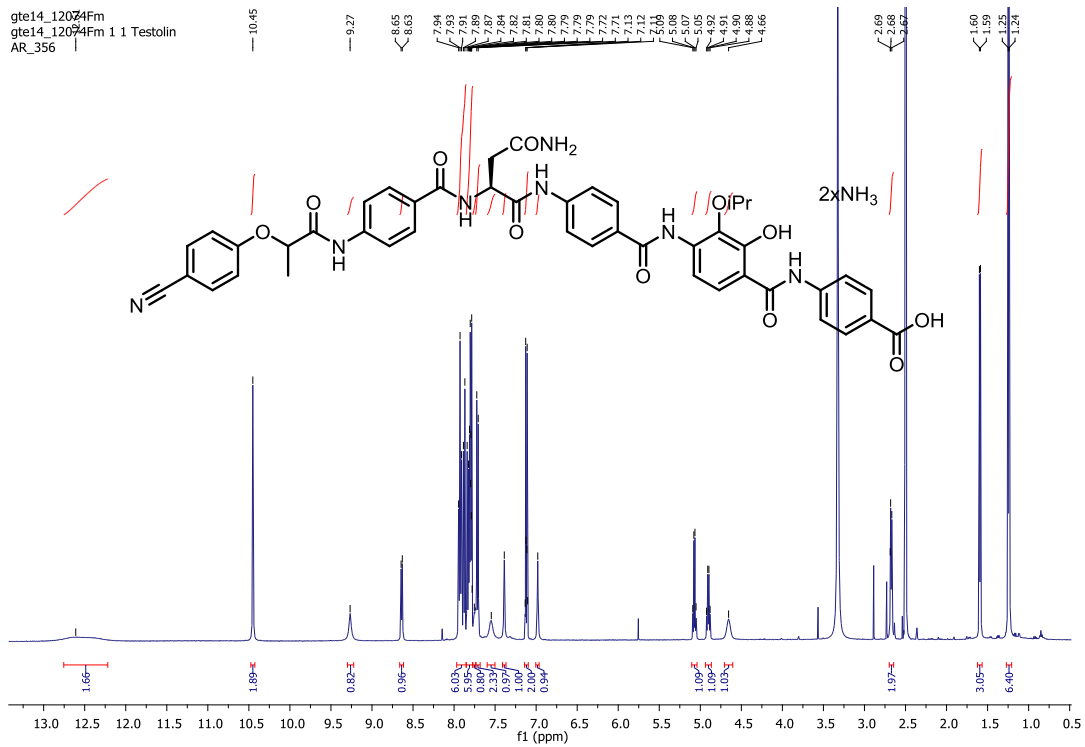
**(S)-4-(4-(4-(4-Amino-2-(4-(2-(4-cyanophenyl)acetamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



**(S)-4-(4-(4-(4-Amino-2-(4-(4-cyano-1-methyl-1H-pyrrole-2-carboxamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

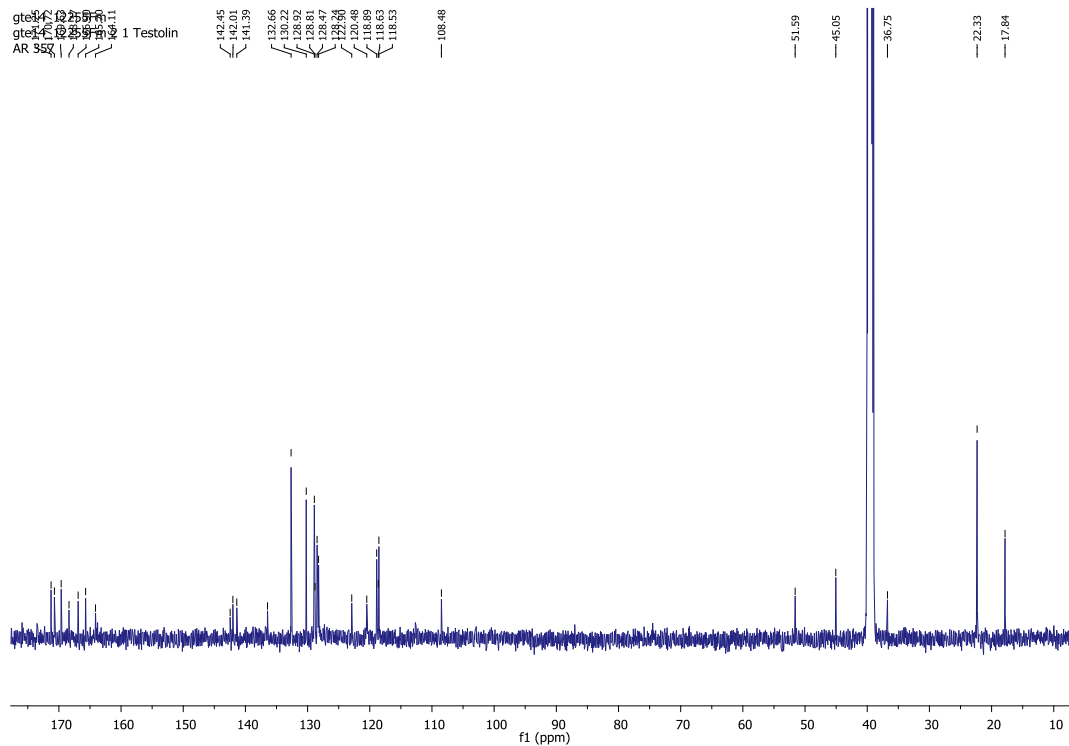
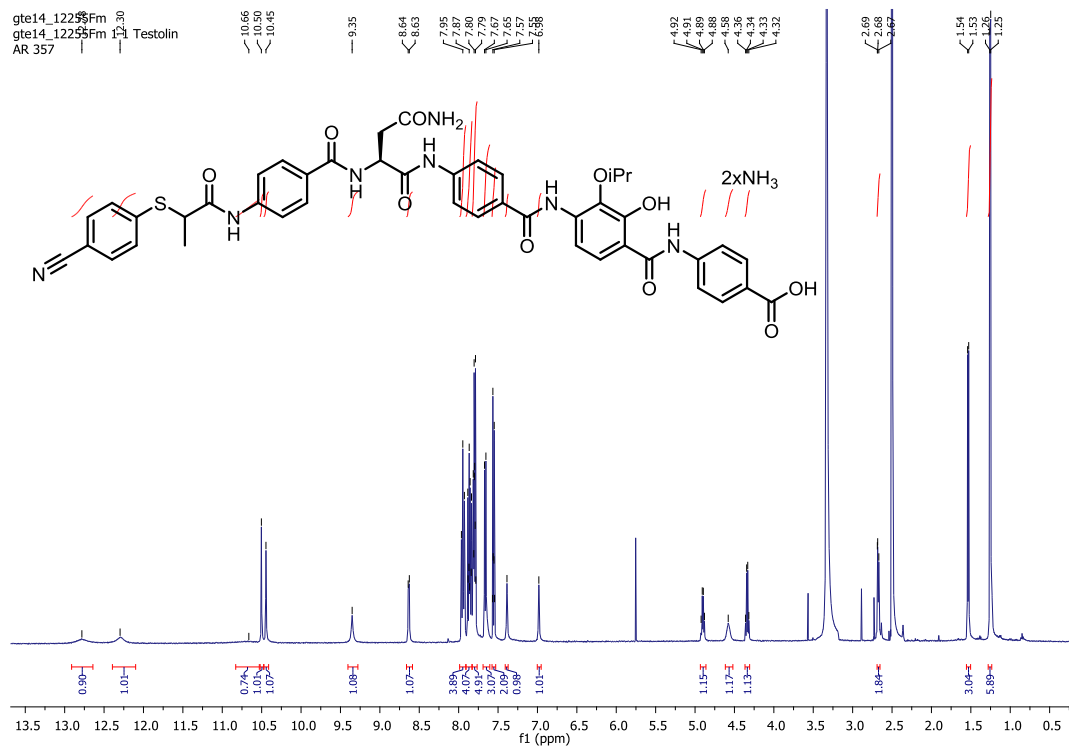


**4-(4-(4-((2S)-4-Amino-2-(4-(2-(4-cyanophenoxy)propanamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

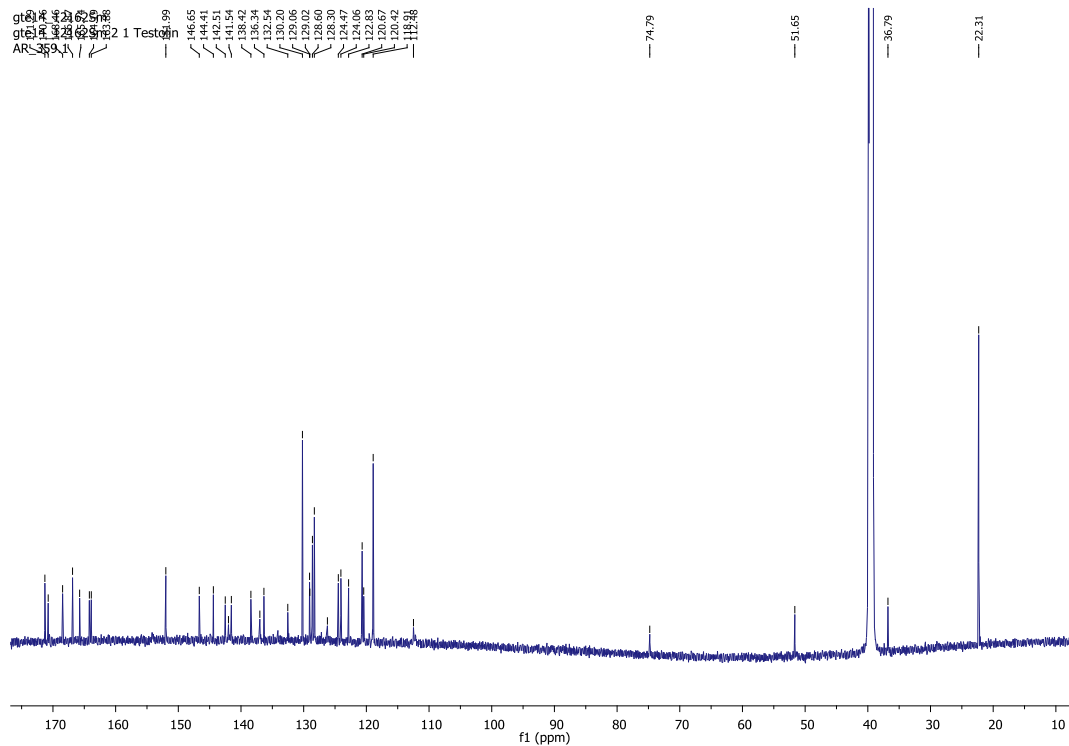
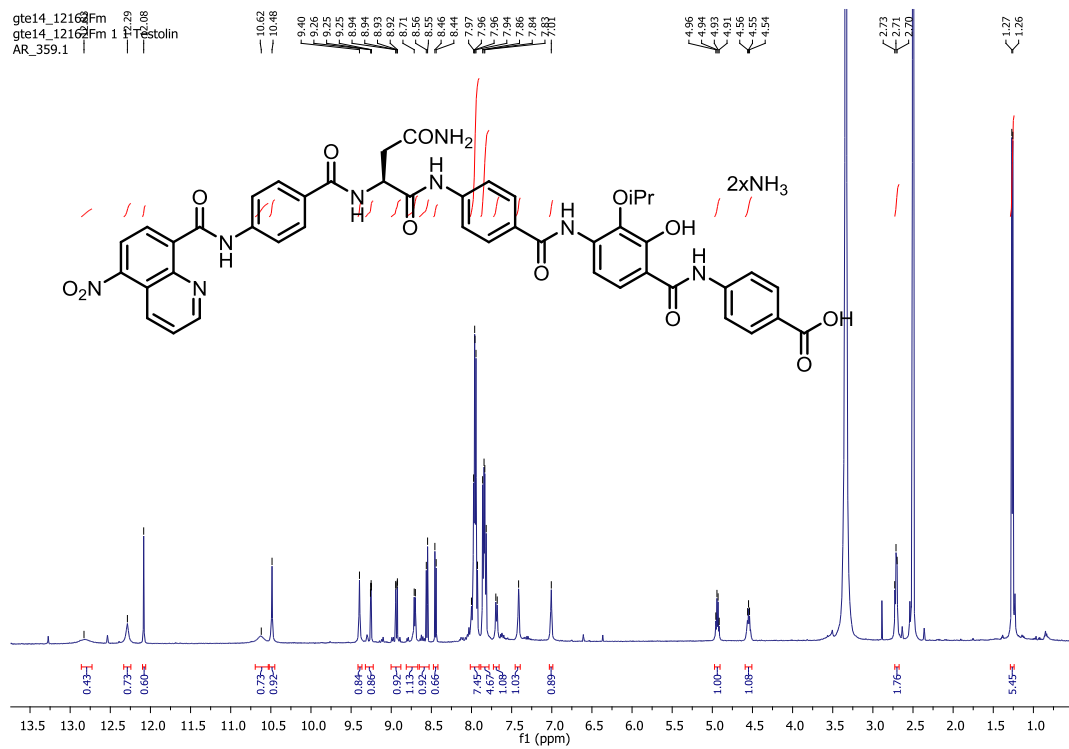




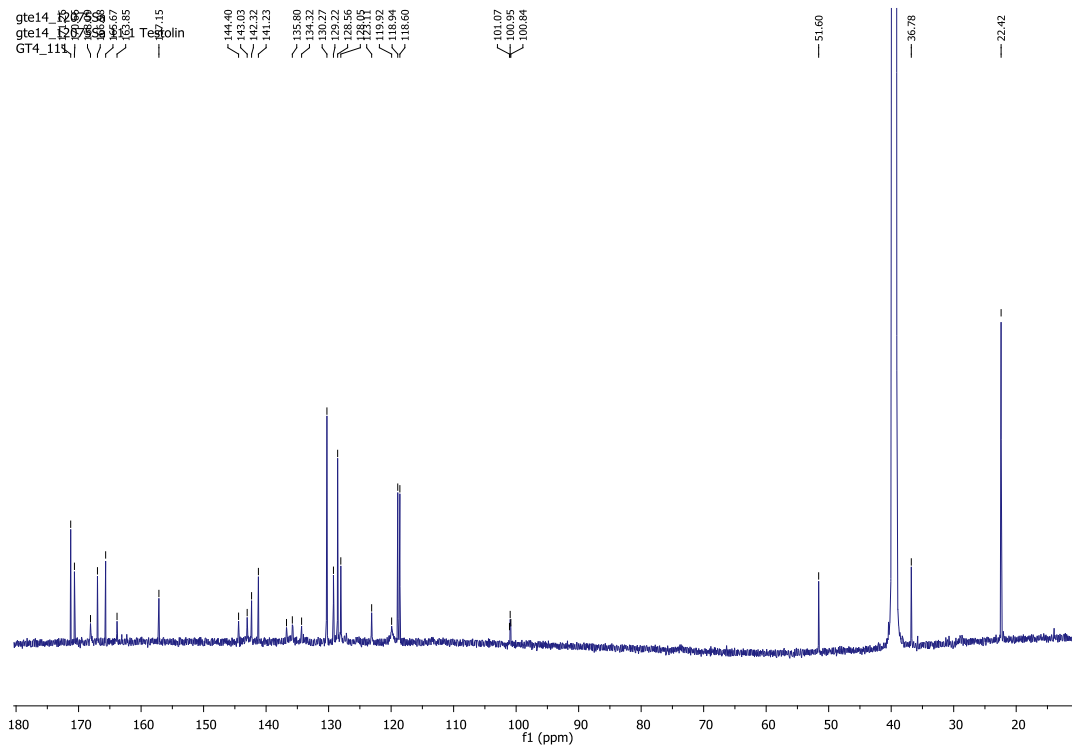
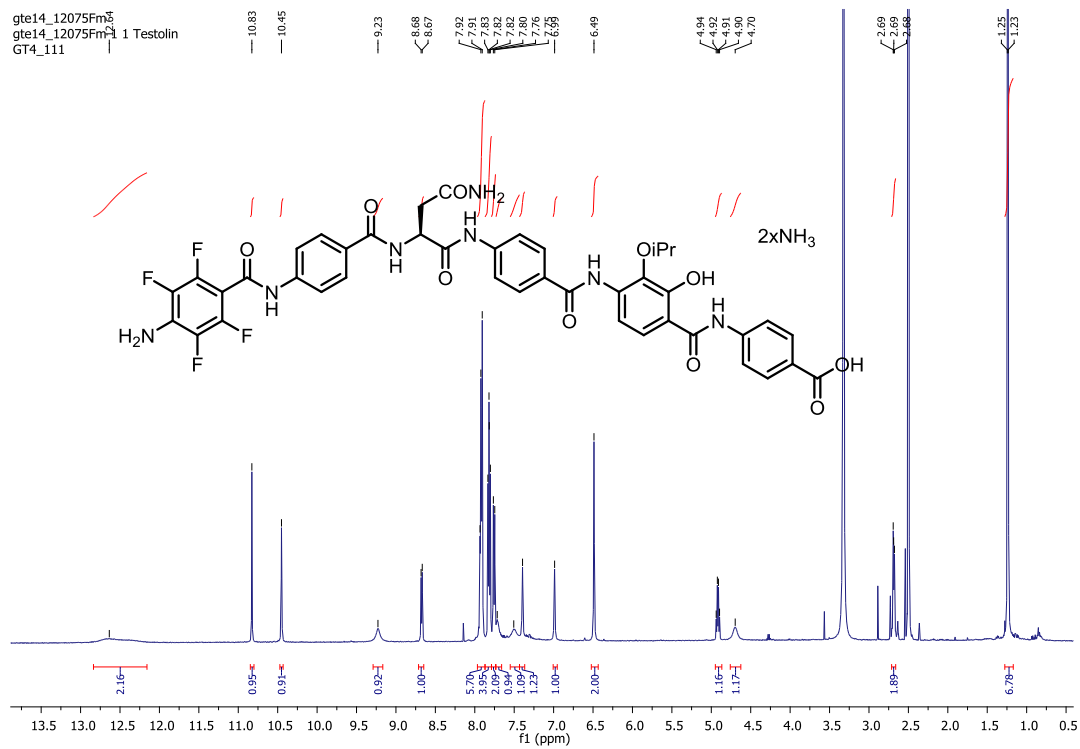
# 4-(4-(4-((2S)-4-Amino-2-(4-(2-((4-cyanophenyl)thio)propanamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid



**(S)-4-(4-(4-(4-Amino-2-(4-(5-nitroquinoline-8-carboxamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

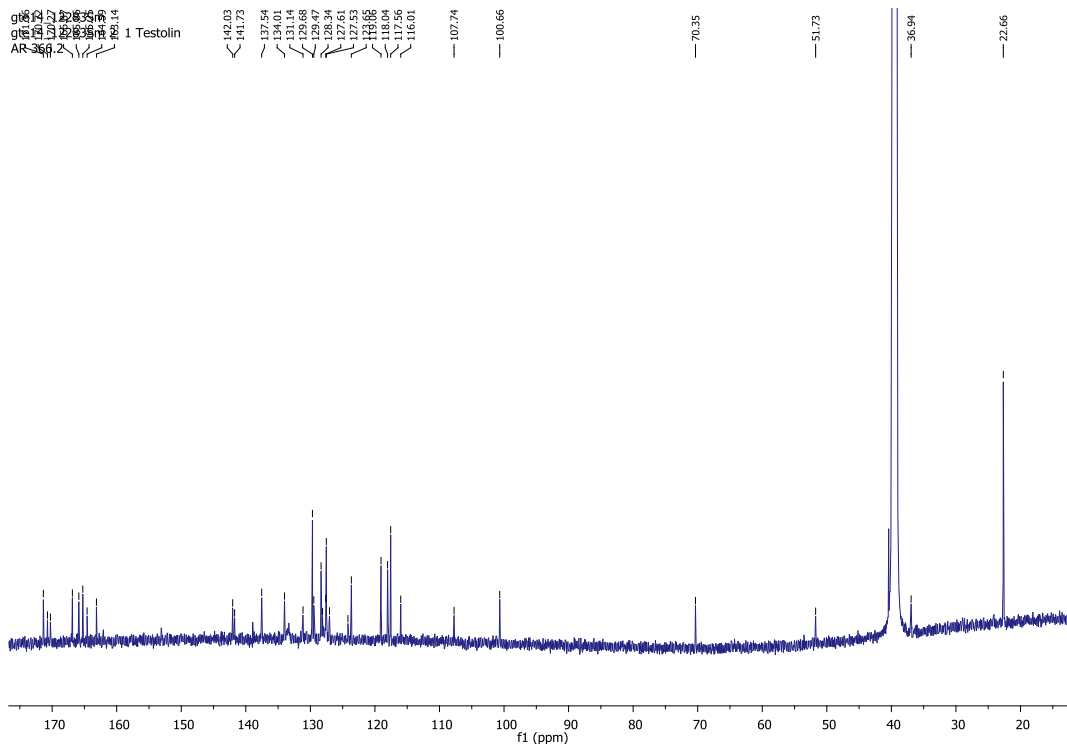
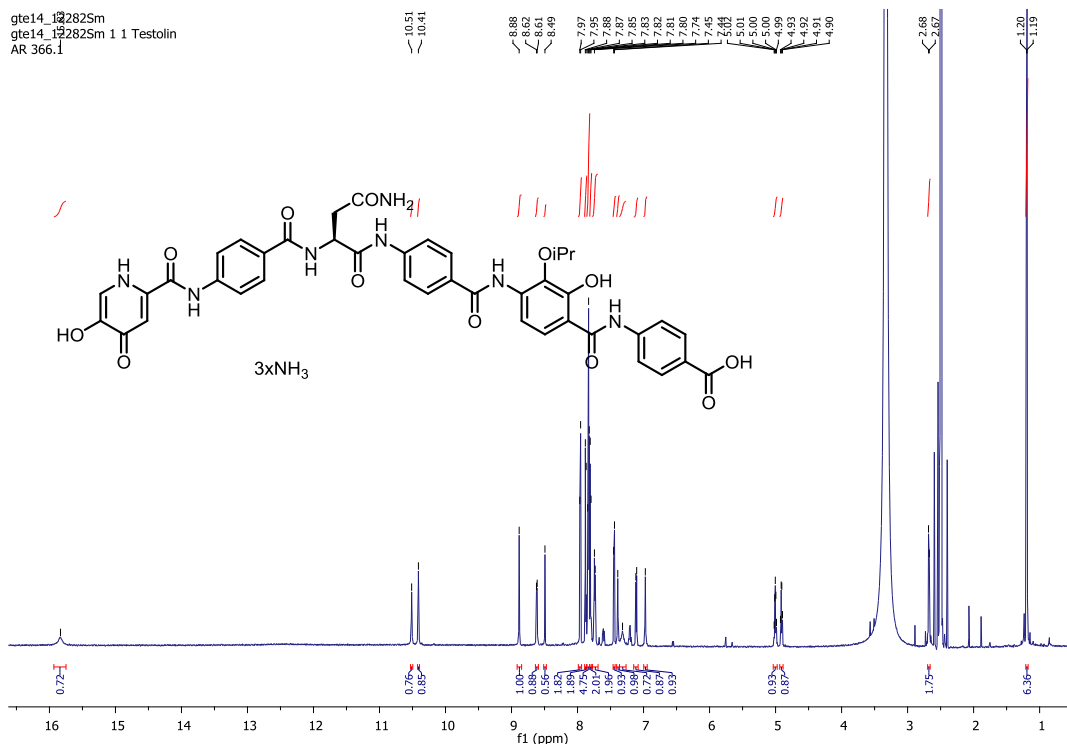


**(S)-4-(4-(4-(4-Amino-2-(4-(4-amino-2,3,5,6-tetrafluorobenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

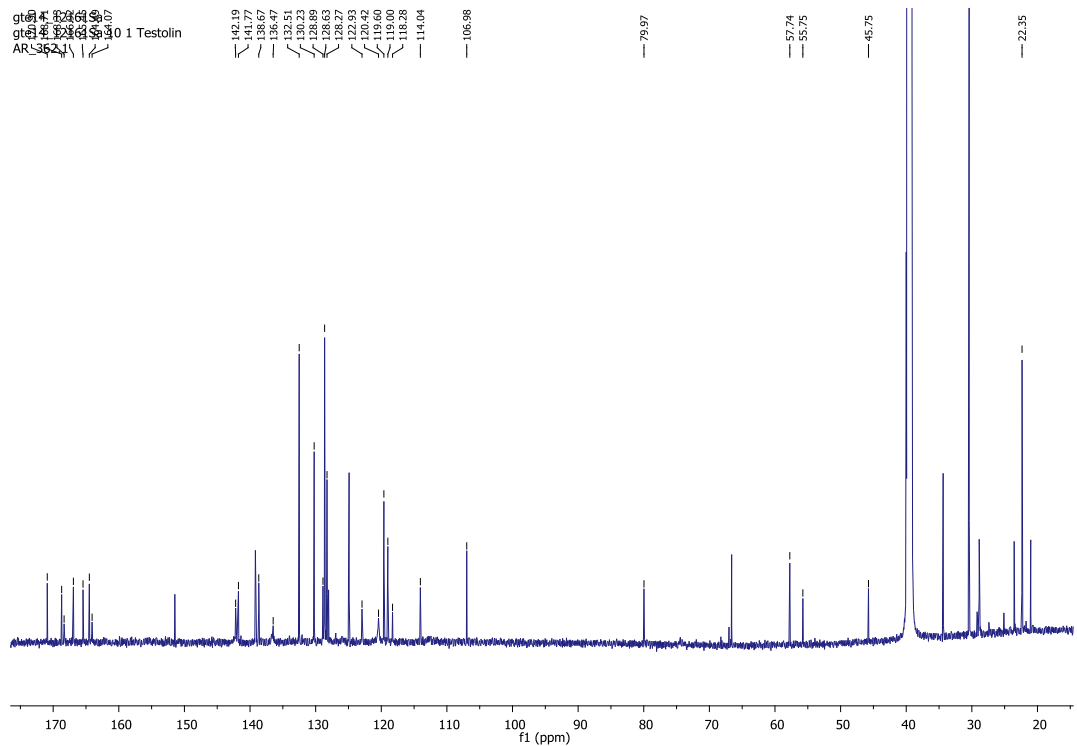
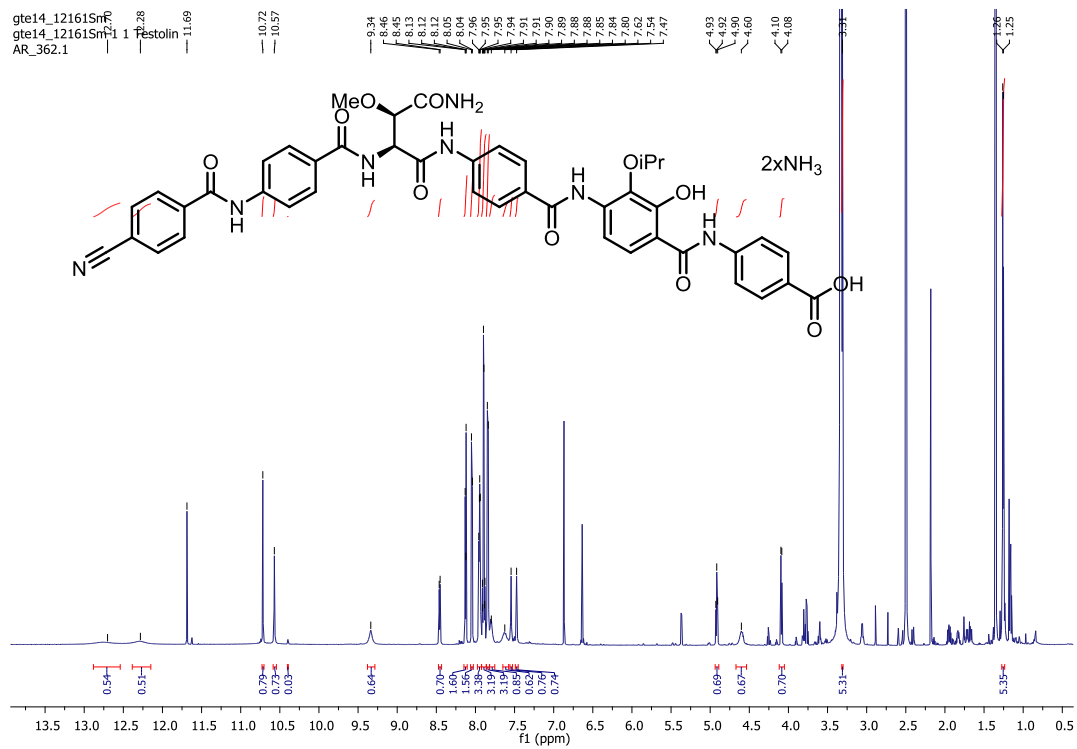


**(S)-4-(4-(4-(4-Amino-2-(4-(5-hydroxy-4-oxo-1,4-dihydropyridine-2-carboxamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

gte14\_12282Sm  
 gte14\_12282Sm 1 1 Testolin  
 AR 366.1

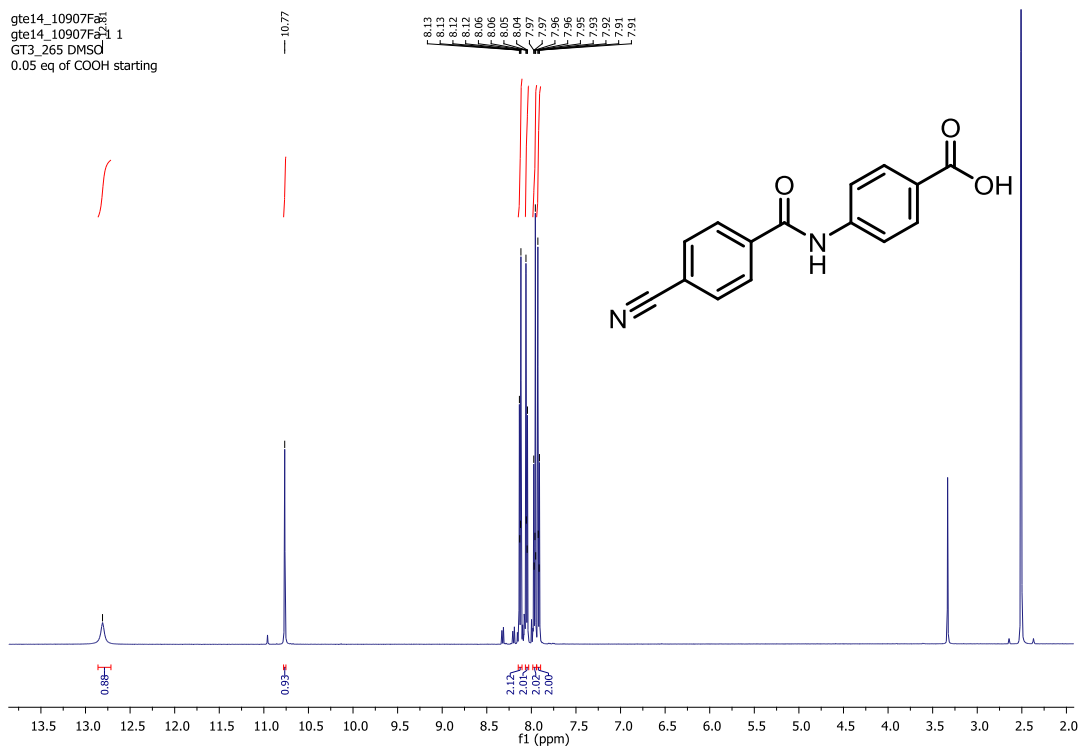


**4-(4-(4-((2S,3R)-4-Amino-2-(4-(4-cyanobenzamido)benzamido)-3-methoxy-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

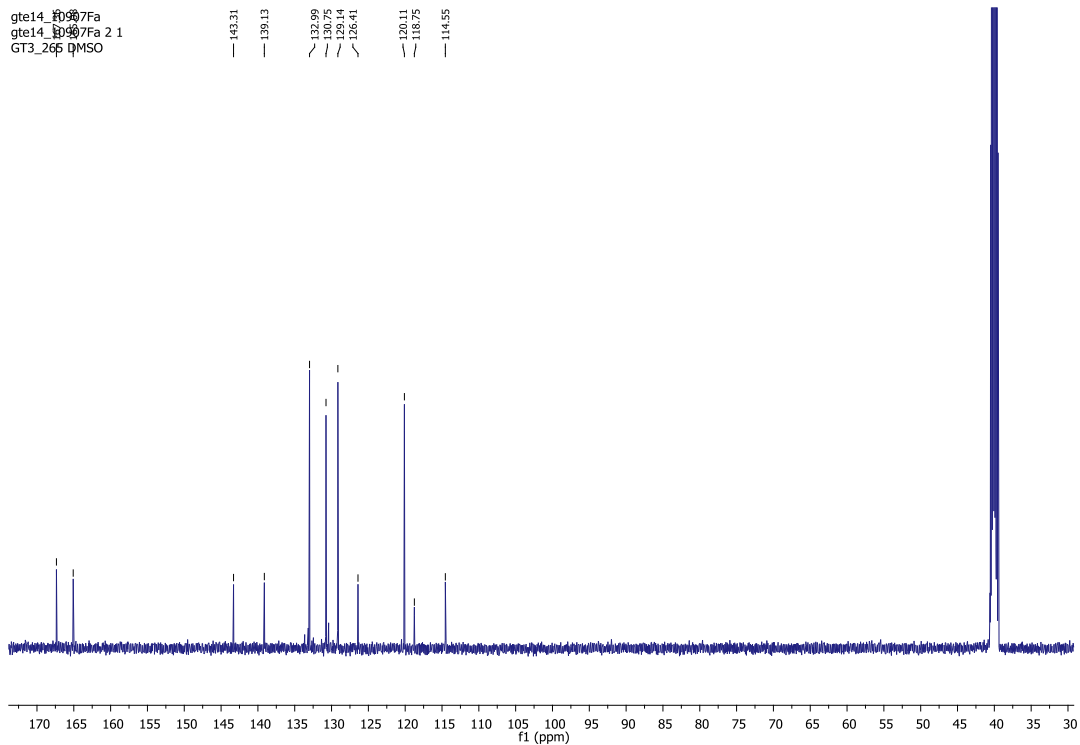


# 4-(4-Cyanobenzamido)benzoic acid

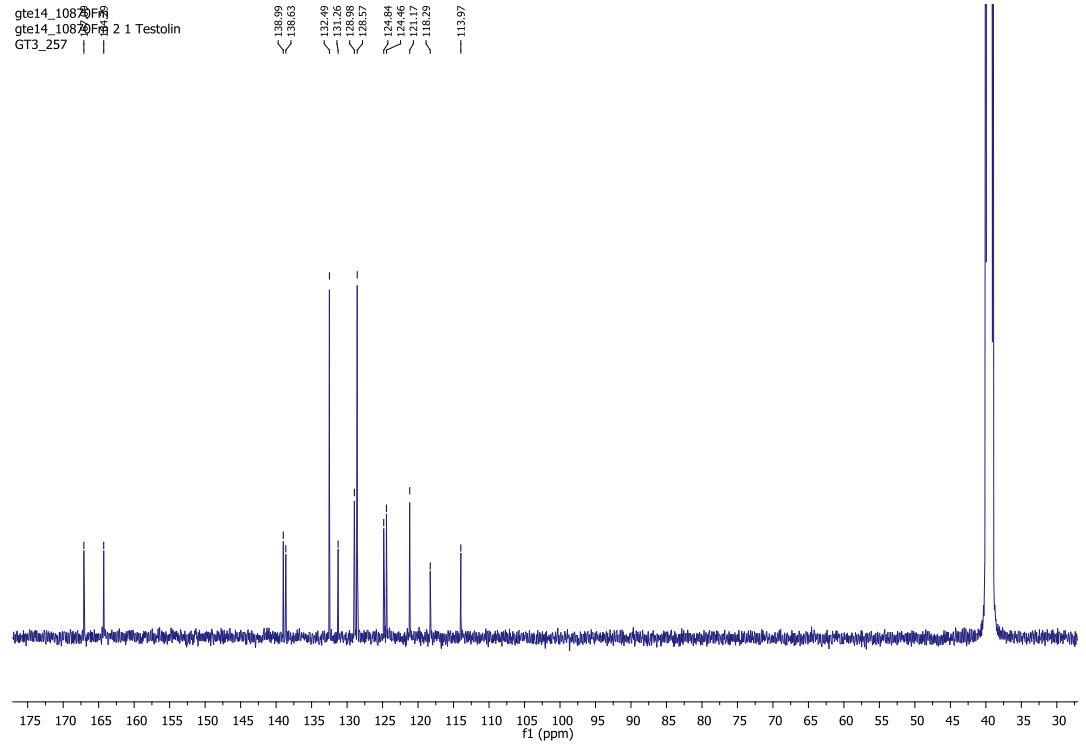
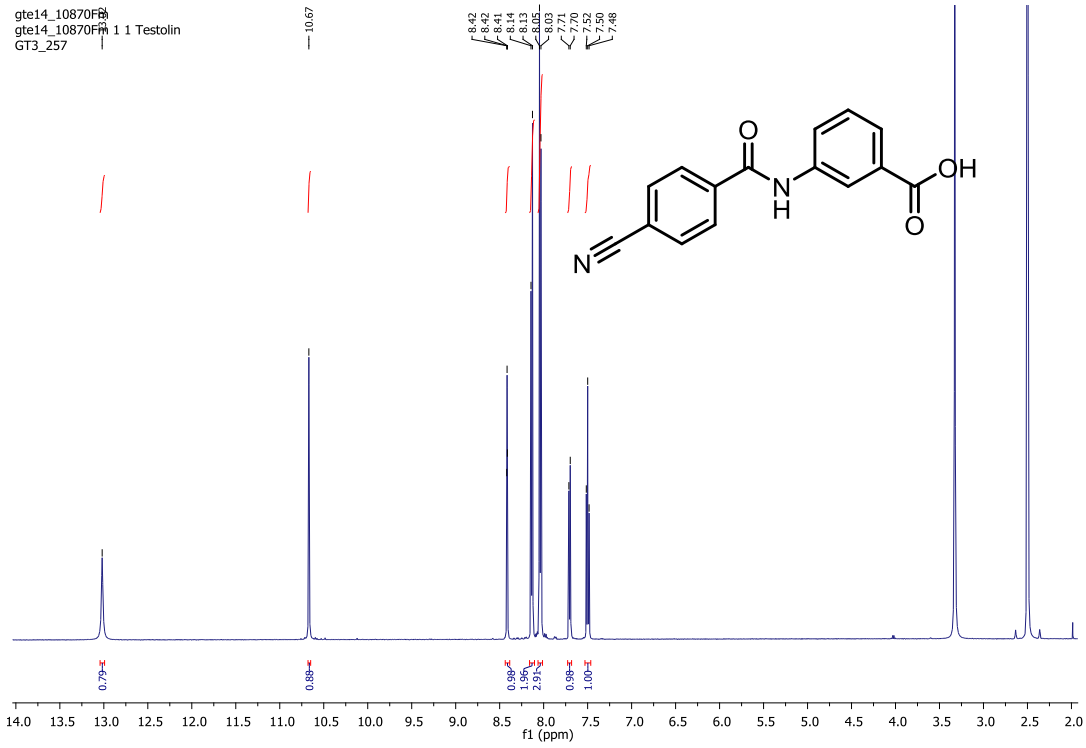
gte14\_10907Fa  
gte14\_10907Fa 1  
GT3\_265 DMSO  
0.05 eq of COOH starting



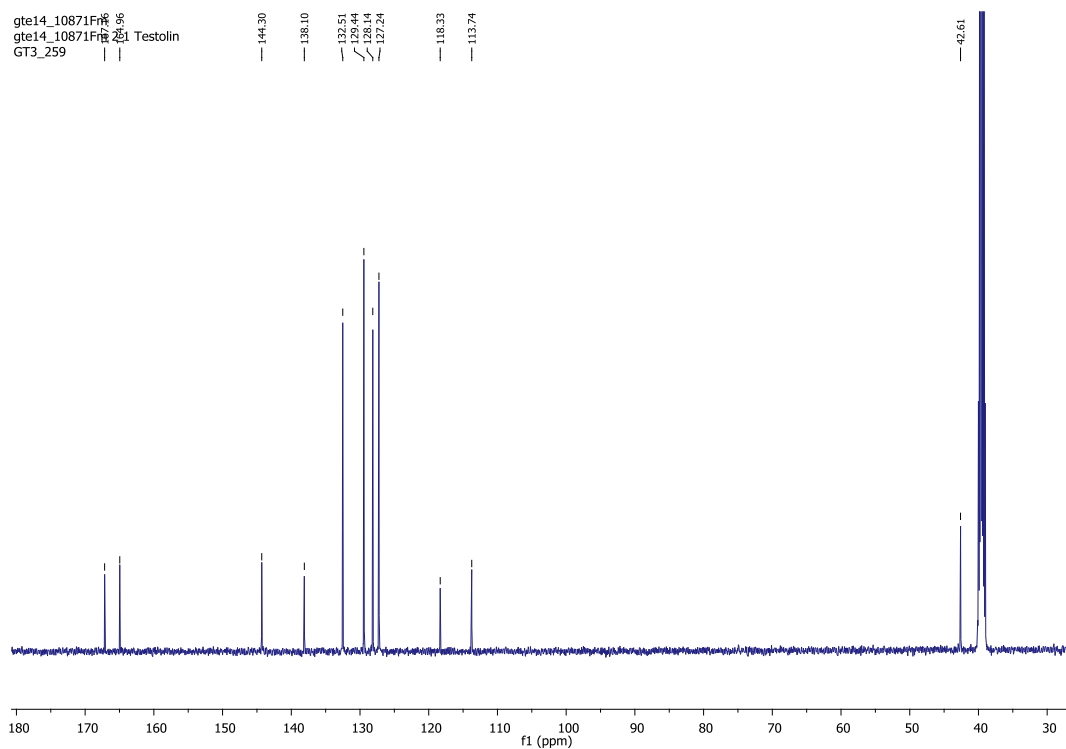
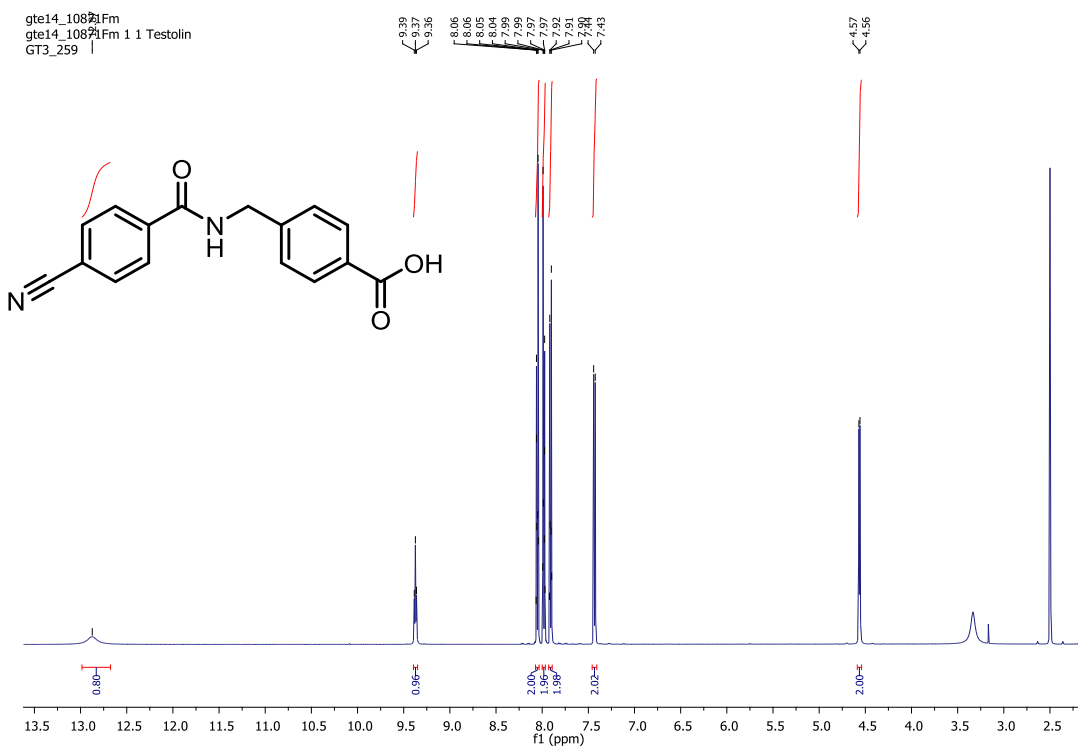
gte14\_10907Fa  
gte14\_10907Fa 2.1  
GT3\_265 DMSO



### 3-(4-Cyanobenzamido)benzoic acid



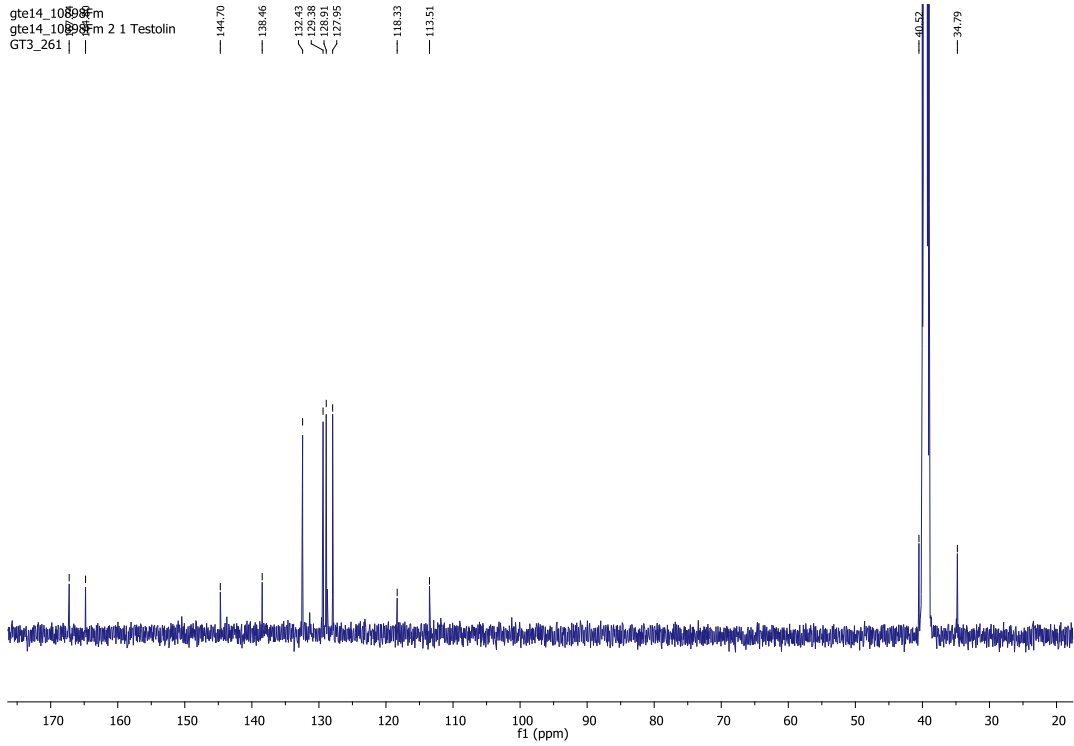
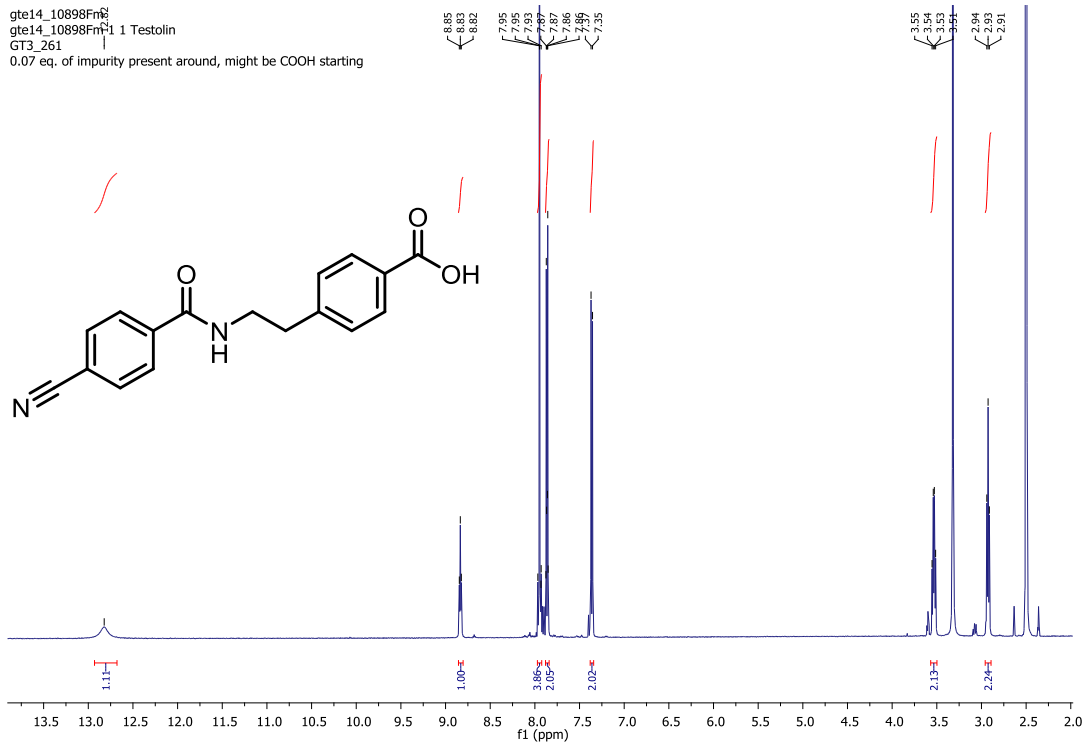
# 4-((4-Cyanobenzamido)methyl)benzoic acid





# 4-(2-(4-Cyanobenzamido)ethyl)benzoic acid

gte14\_10898Fm  
 gte14\_10898Fm 1 1 Testolin  
 GT3\_261  
 0.07 eq. of impurity present around, might be COOH starting

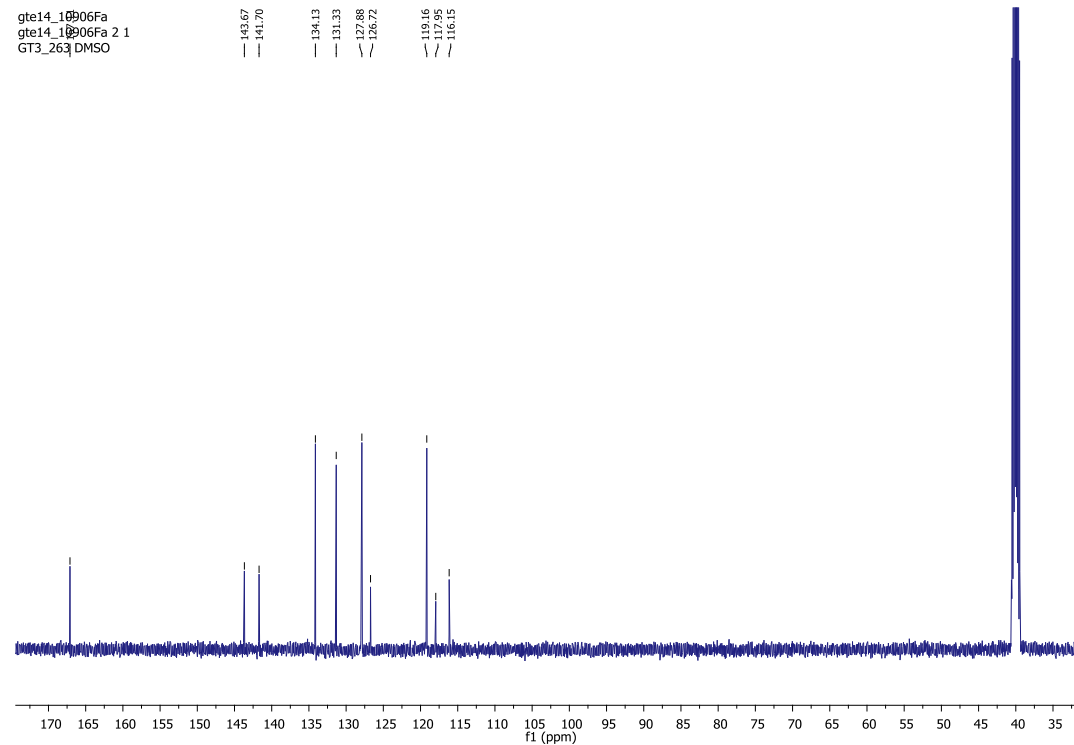


# 4-((4-Cyanophenyl)sulfonamido)benzoic acid

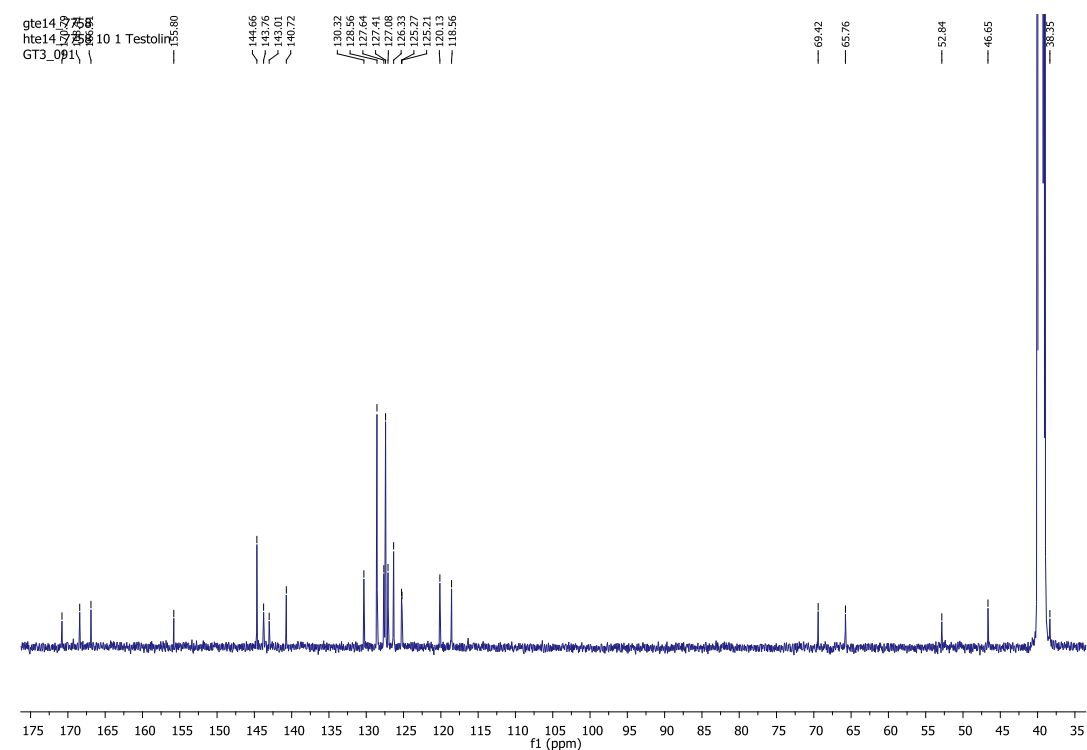
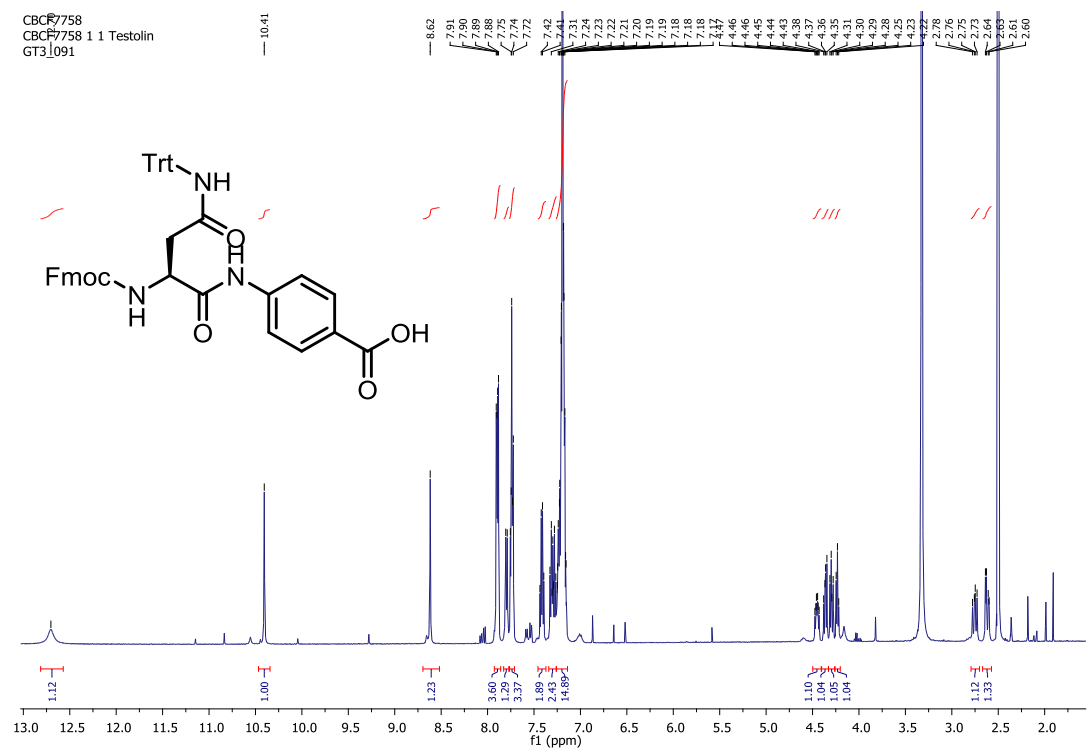
gte14\_10906Fa  
gte14\_10906Fa 1 1  
GT3\_263 DMSO



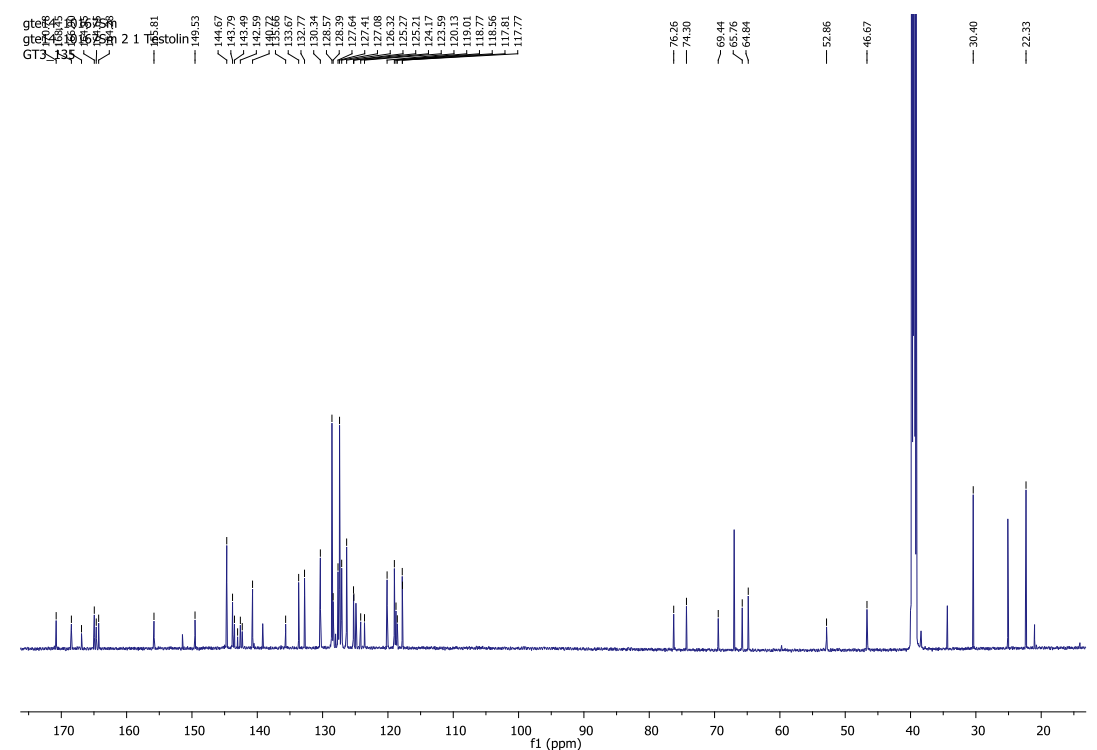
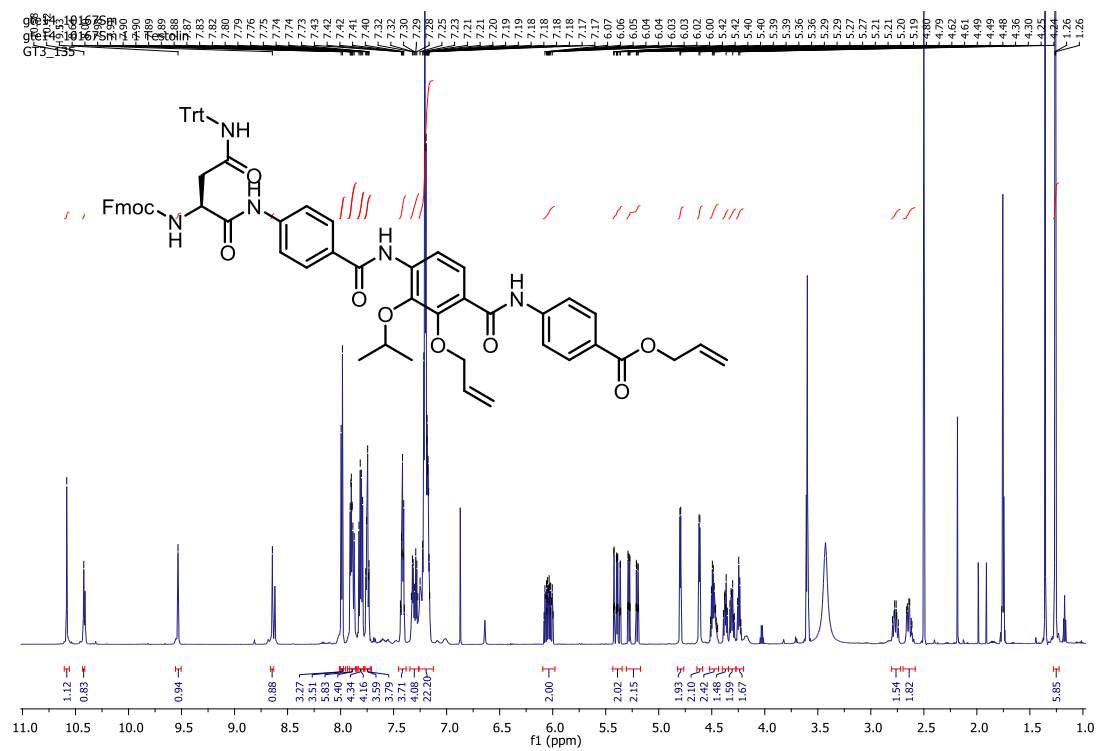
gte14\_10906Fa  
gte14\_10906Fa 2 1  
GT3\_263 DMSO



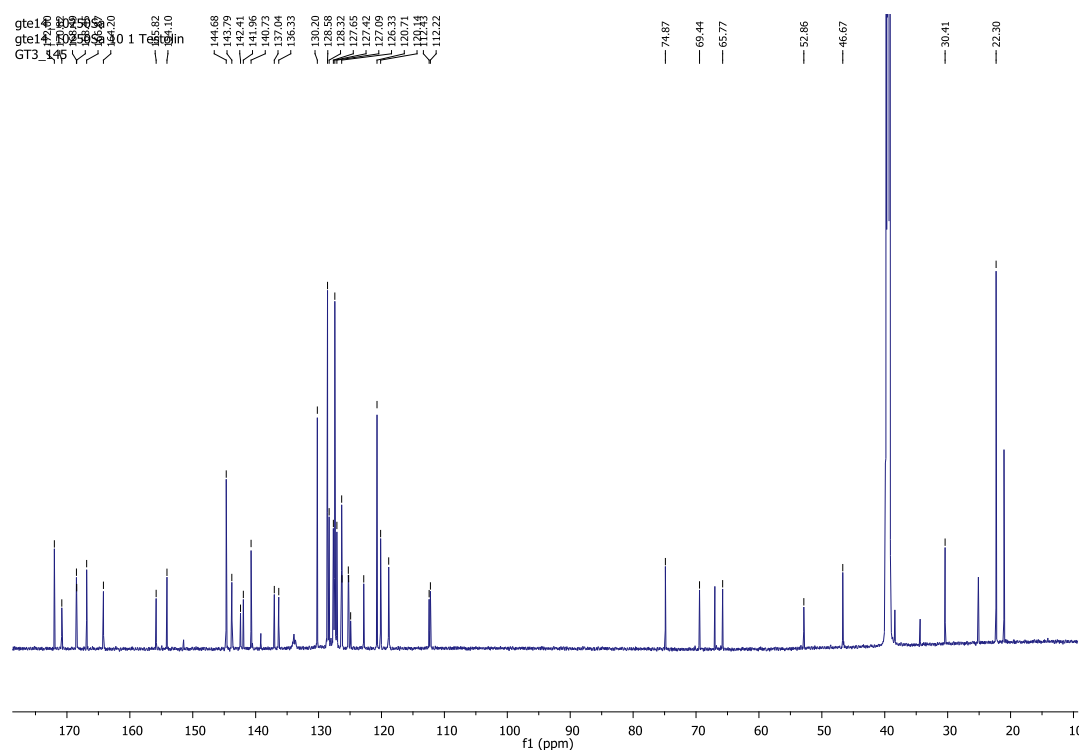
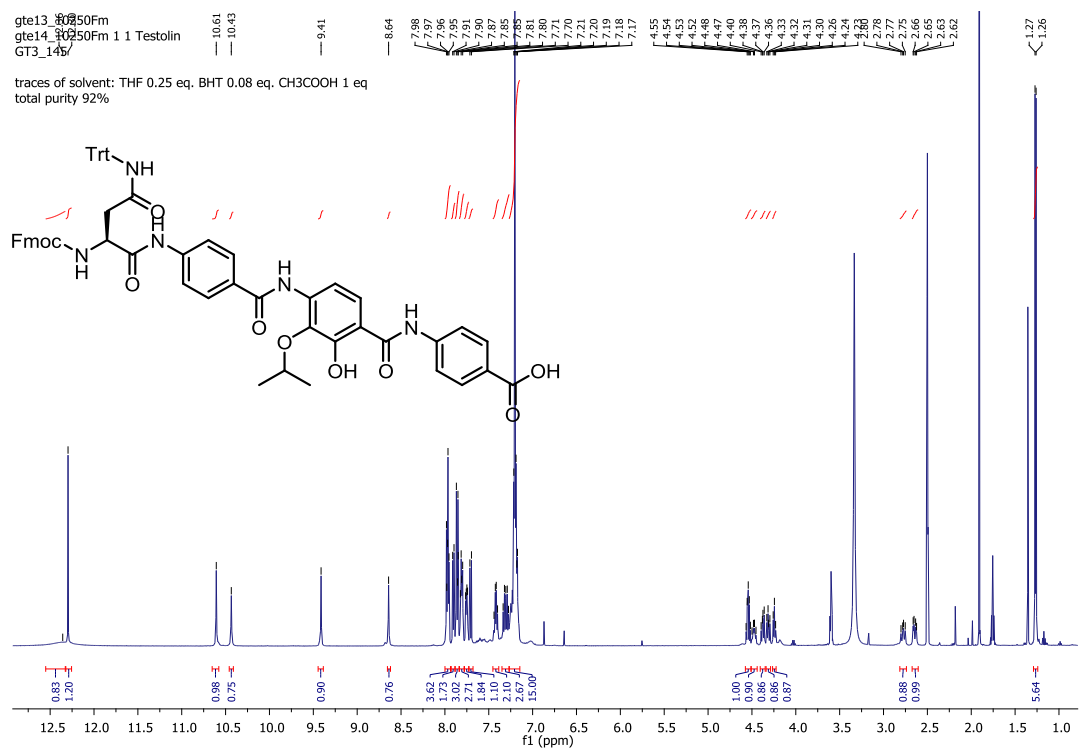
**(S)-4-(2-((((9H-Fluoren-9-yl)methoxy)carbonyl)amino)-4-oxo-4-(tritylamino)butanamido)benzoic acid**



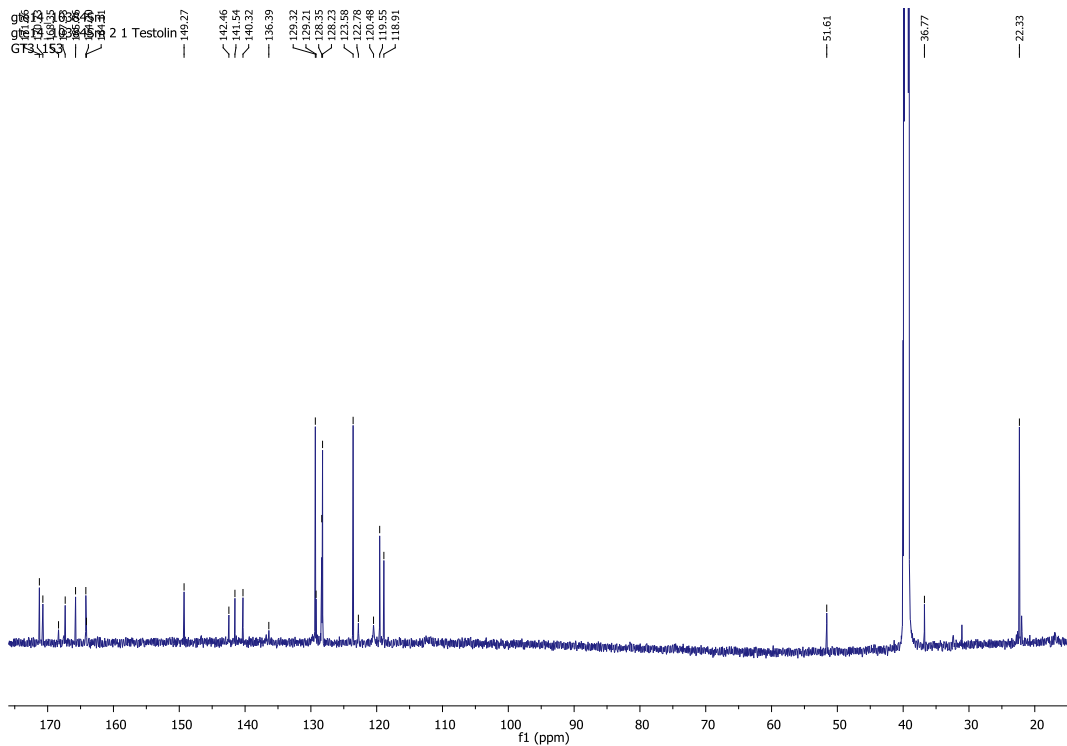
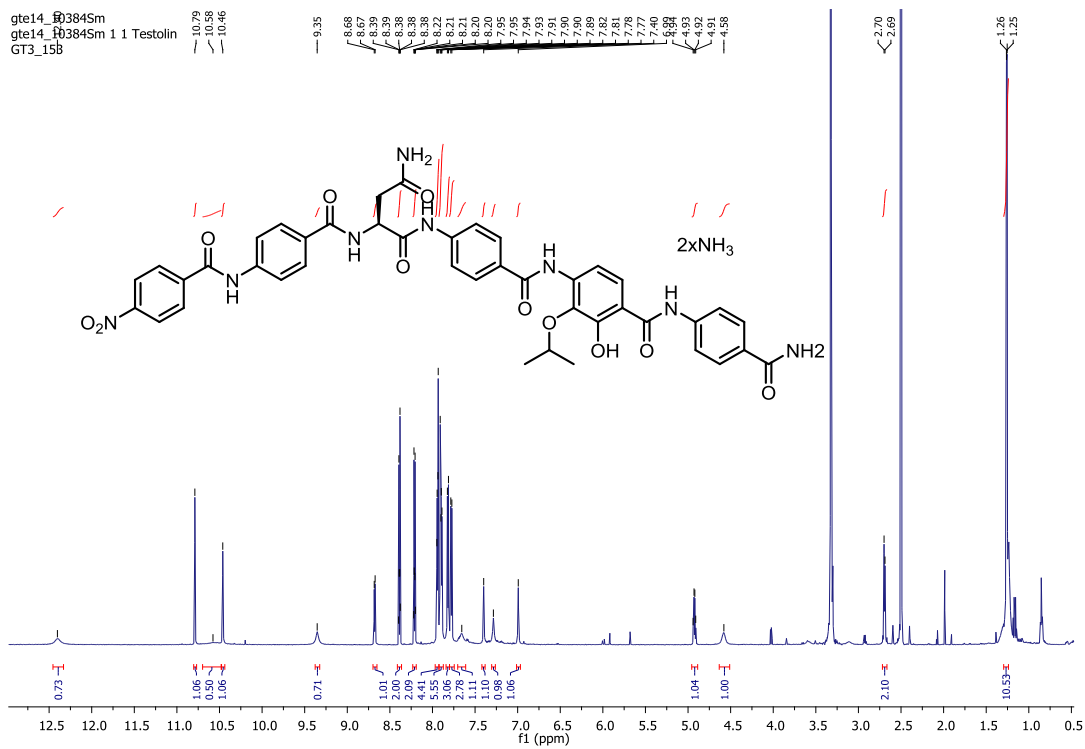
**Allyl (S)-4-(4-(2-(((9H-fluoren-9-yl)methoxy)carbonyl)amino)-4-oxo-4-(tritylamino)butanamido)benzamido)-2-(allyloxy)-3-isopropoxybenzamido)benzoate**



**(S)-4-(4-(4-(2-(((9H-Fluoren-9-yl)methoxy)carbonyl)amino)-4-oxo-4-(tritylamino)butanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

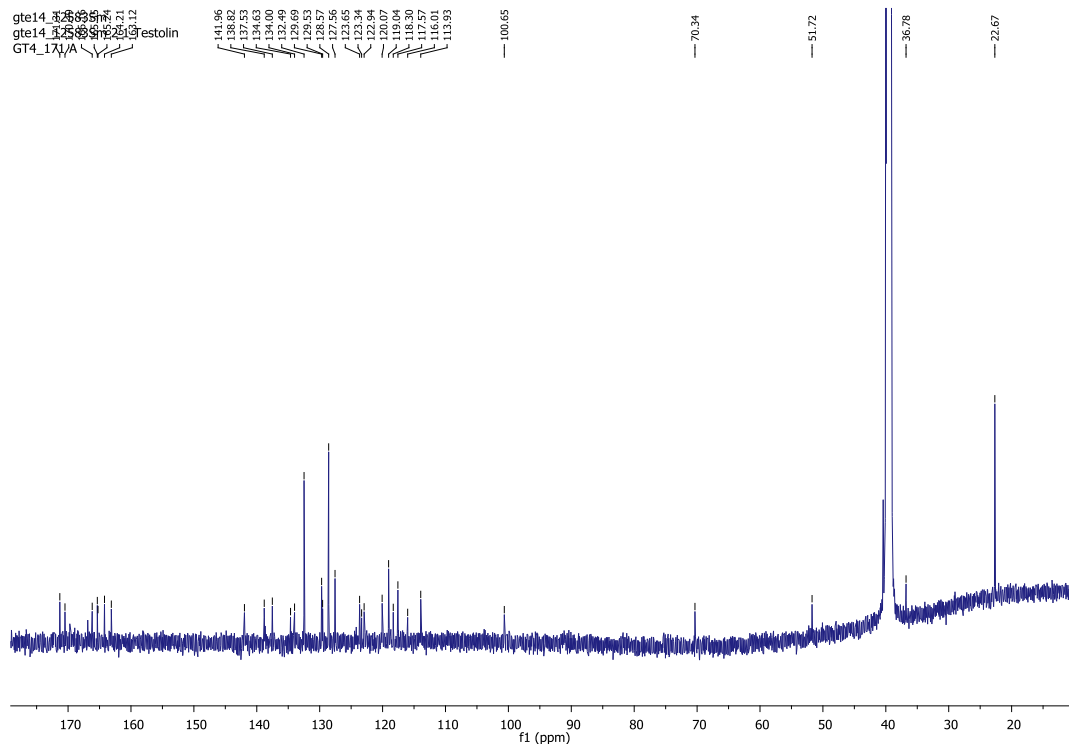
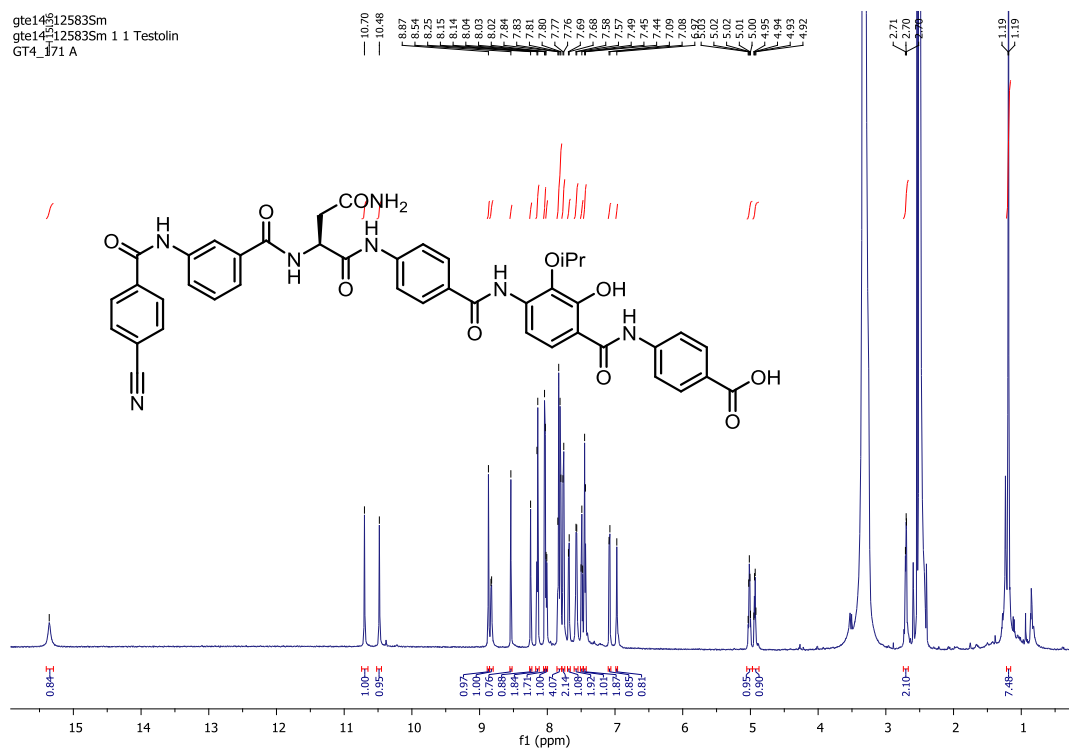


**(S)-N1-(4-((4-Carbamoylphenyl)carbamoyl)-3-hydroxy-2-isopropoxyphenyl)carbamoyl)phenyl)-2-(4-(4-nitrobenzamido)benzamido)succinamide**

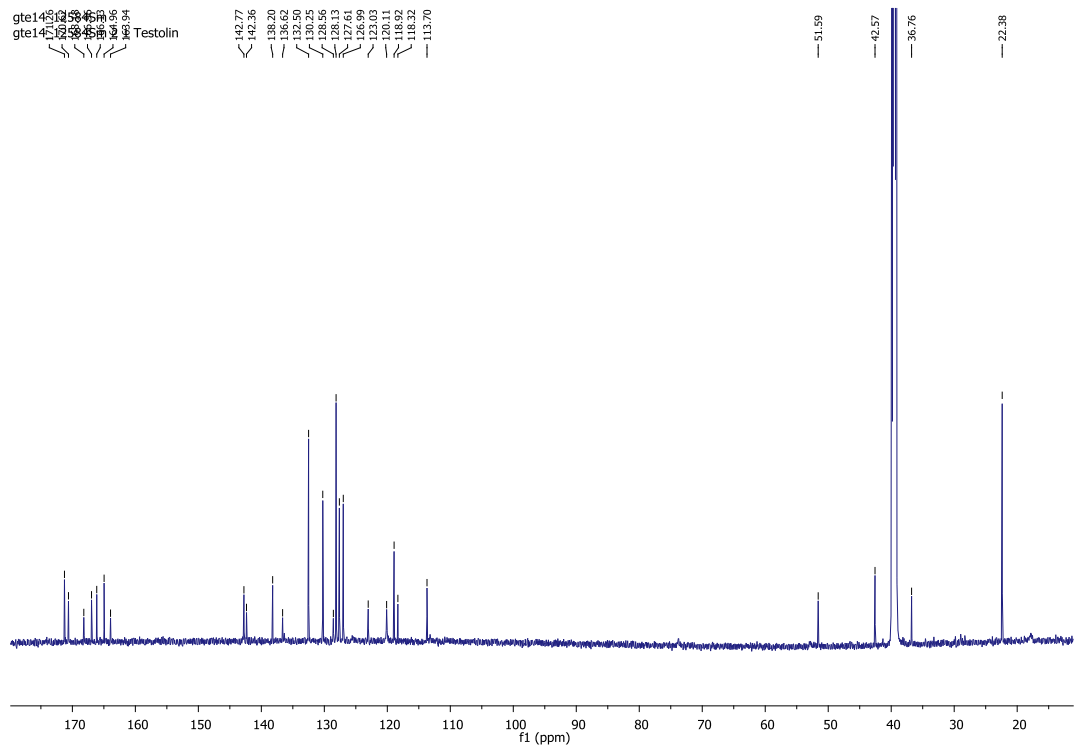
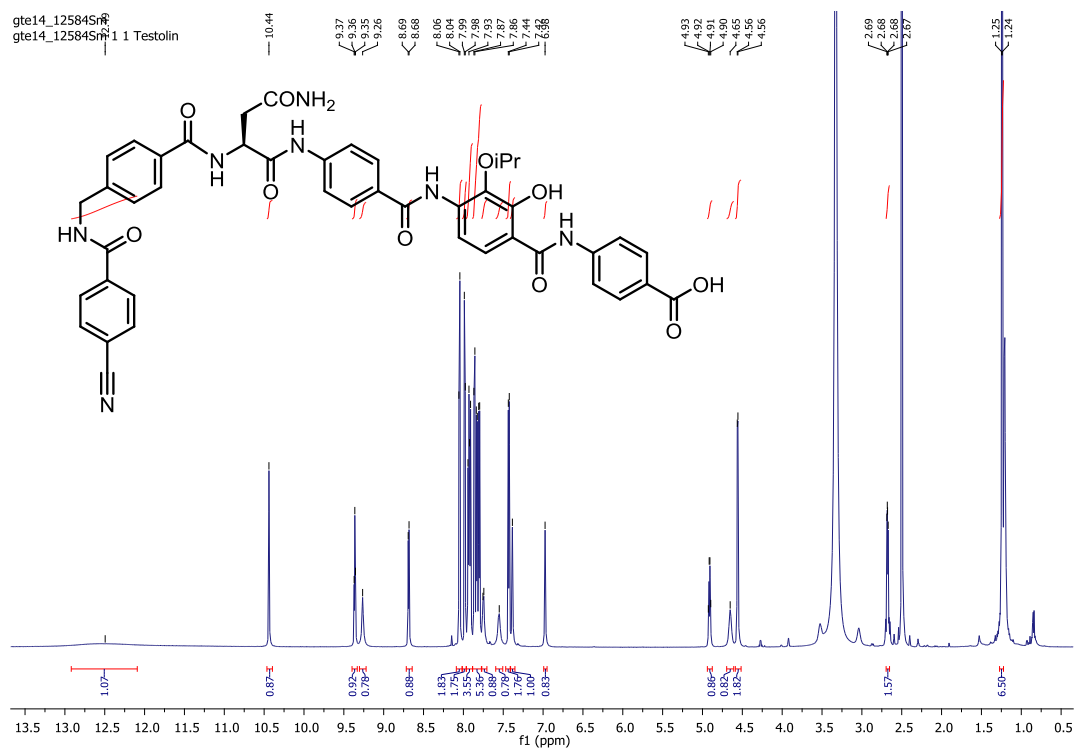


# (S)-4-(4-(4-(4-Amino-2-(3-(4-cyanobenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid

gte14\_12583Sm  
 gte14\_12583Sm 1 1 Testolin  
 GT4\_171 A



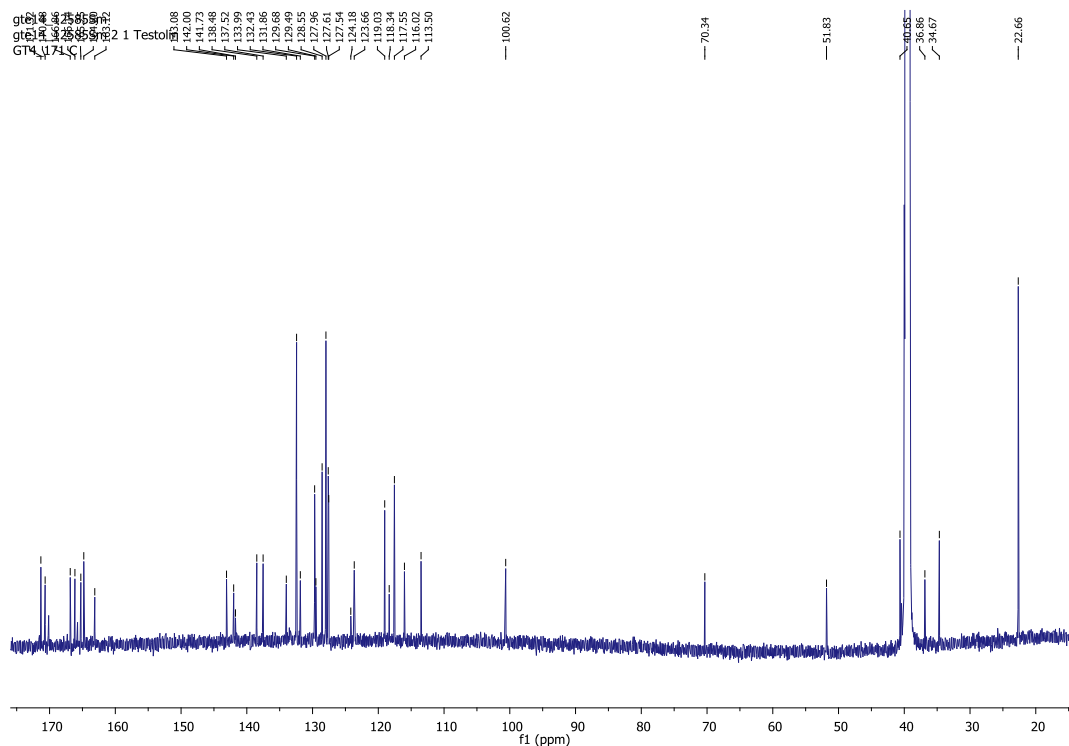
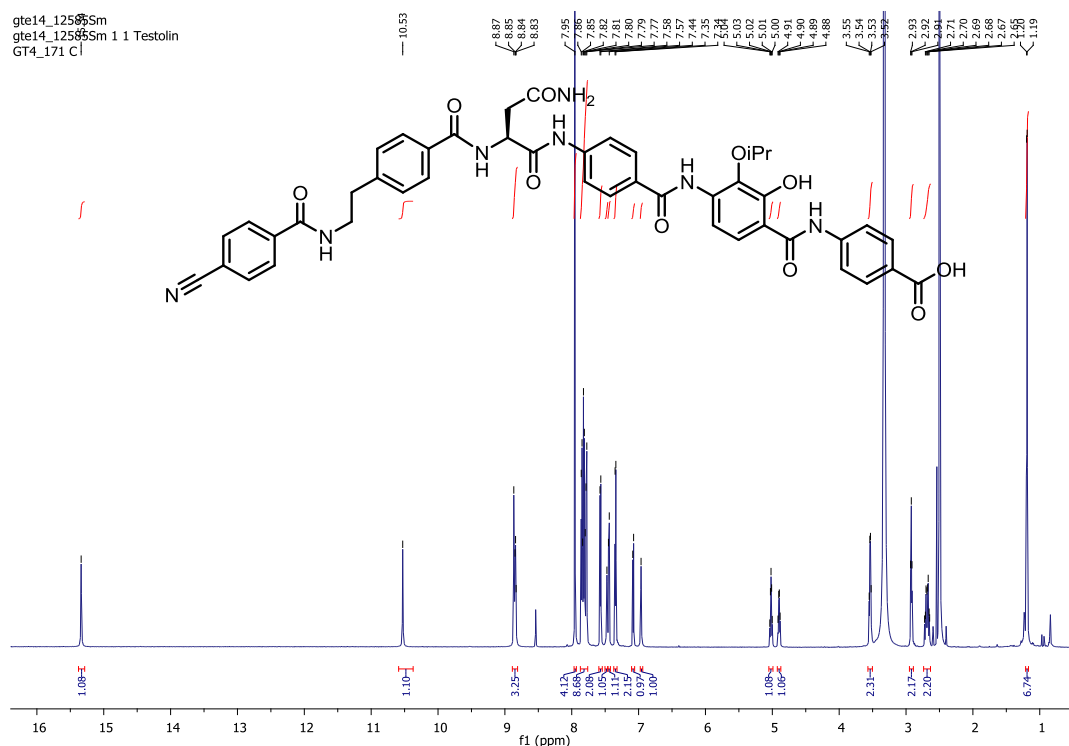
**(S)-4-(4-(4-(4-Amino-2-(4-((4-cyanobenzamido)methyl)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



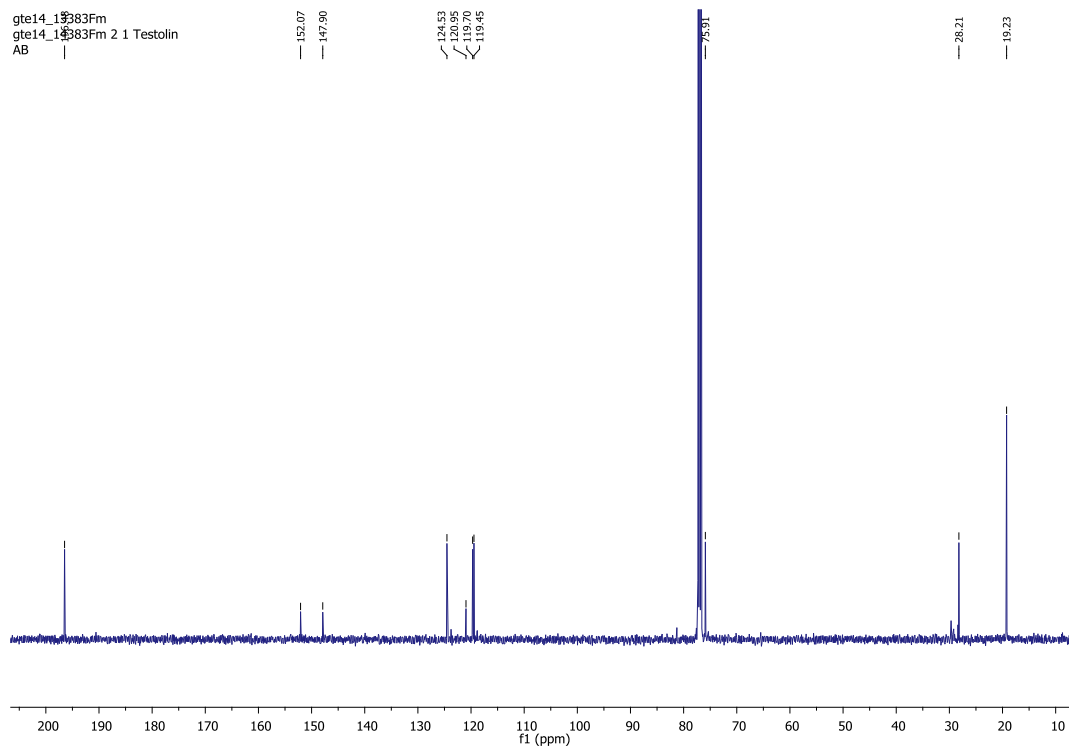
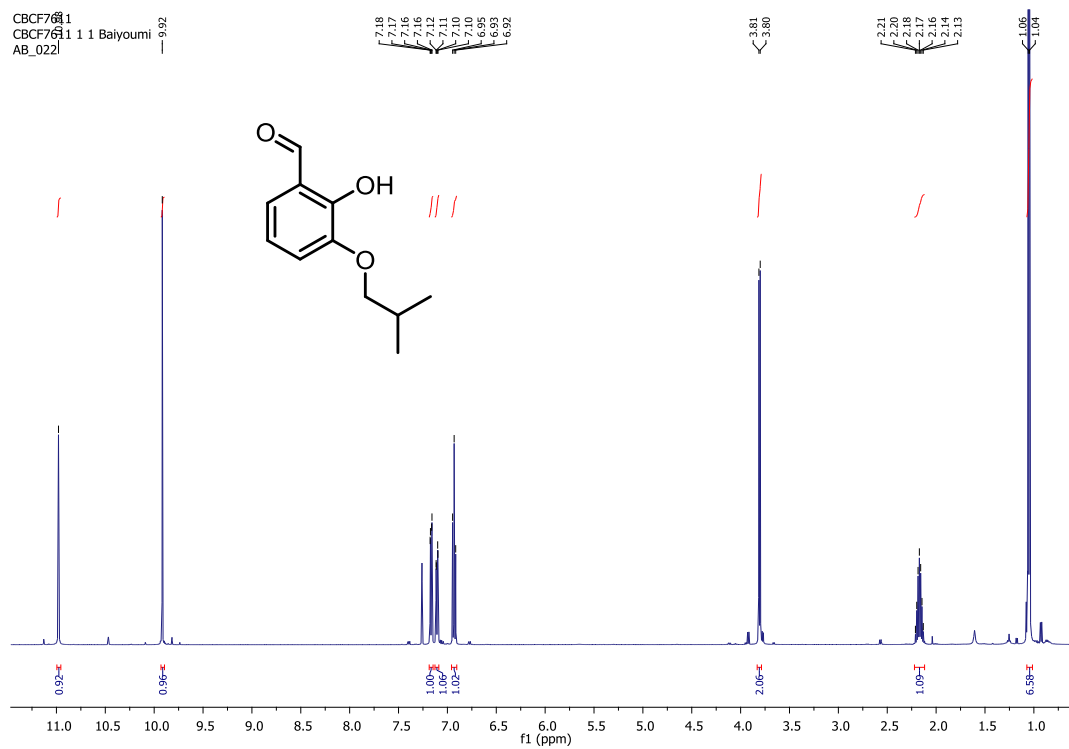


**(S)-4-(4-(4-(4-Amino-2-(4-(2-(4-cyanobenzamido)ethyl)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

gte14\_12585Sm  
 gte14\_12585Sm 1 1 Testolin  
 GT4\_171 C1



# 2-Hydroxy-3-isobutoxybenzaldehyde



# 2-Formyl-6-isobutoxyphenyl acetate

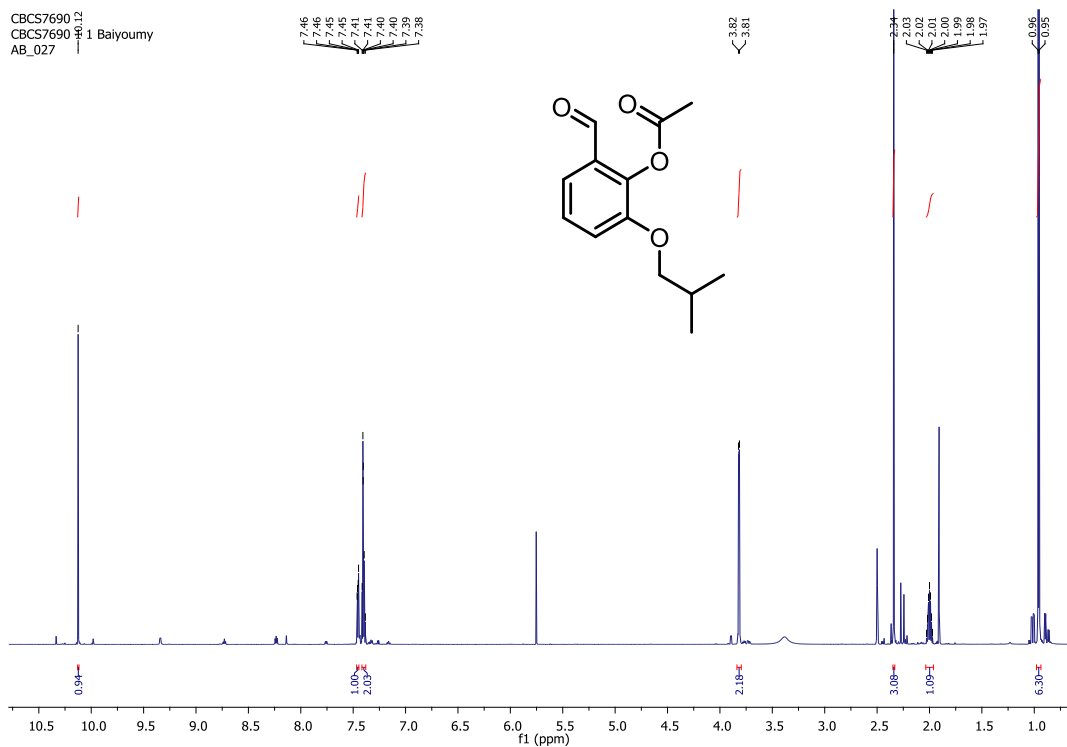
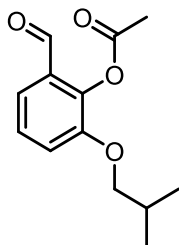
CBCS7690 2  
 CBCS7690 2 1 Baiyoumy  
 AB\_027

7.46  
 7.45  
 7.45  
 7.41  
 7.40  
 7.39  
 7.38

3.82  
 3.81

2.03  
 2.02  
 2.00  
 1.99  
 1.98  
 1.97

0.95  
 0.95



CBCS7690  
 CBCS7690 2 1 Baiyoumy  
 AB\_027

168.49

150.89

141.08

128.91

126.98

120.36

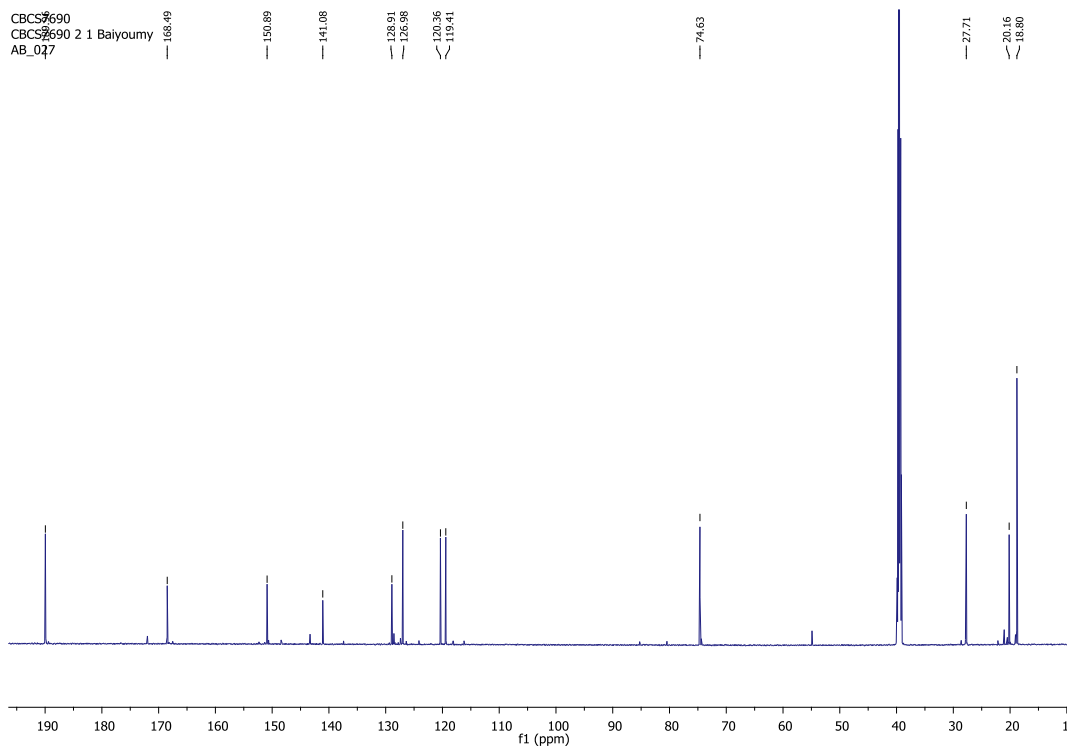
113.41

74.63

27.71

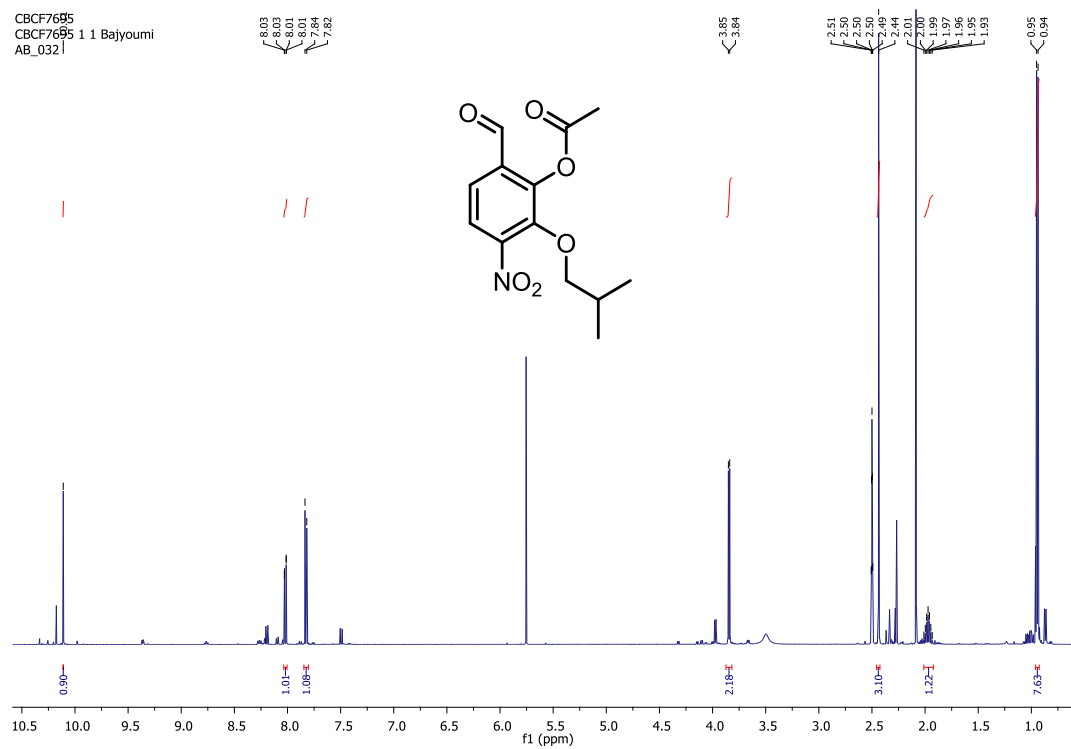
20.16

18.80

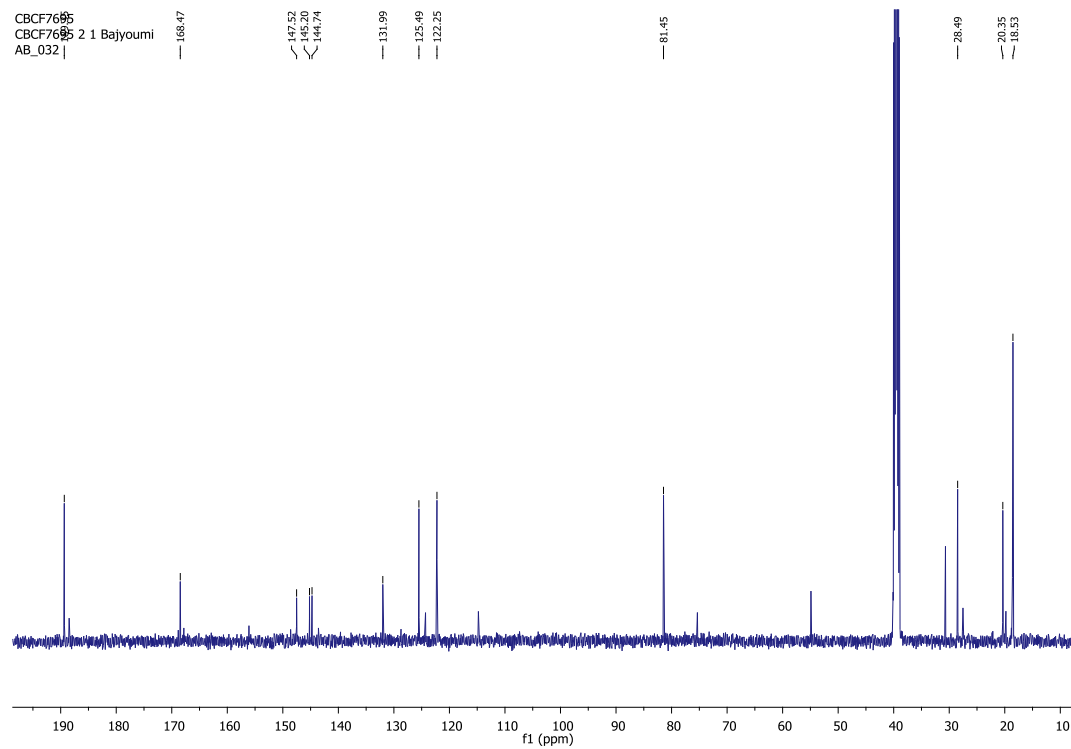


# 6-Formyl-2-isobutoxy-3-nitrophenyl acetate

CBCF7695  
CBCF7695 1 1 Bajyoumi  
AB\_032 |



CBCF7695  
CBCF7695 2 1 Bajyoumi  
AB\_032 |

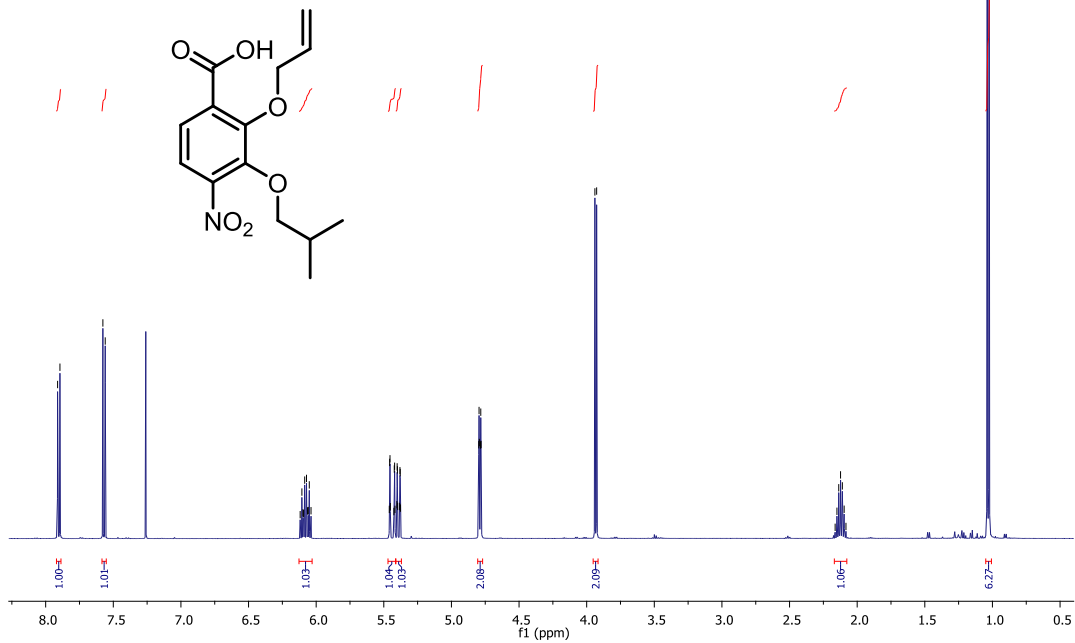


# 2-(Allyloxy)-3-isobutoxy-4-nitrobenzoic acid

alb16\_10085Fm 1 Baiyoumy  
AB\_051

6.12  
6.10  
6.09  
6.08  
6.07  
6.06  
6.05  
6.04  
5.46  
5.45  
5.42  
5.40  
5.38  
5.36  
4.80  
4.79  
4.78  
3.94  
3.93

2.16  
2.15  
2.14  
2.12  
2.11  
2.09



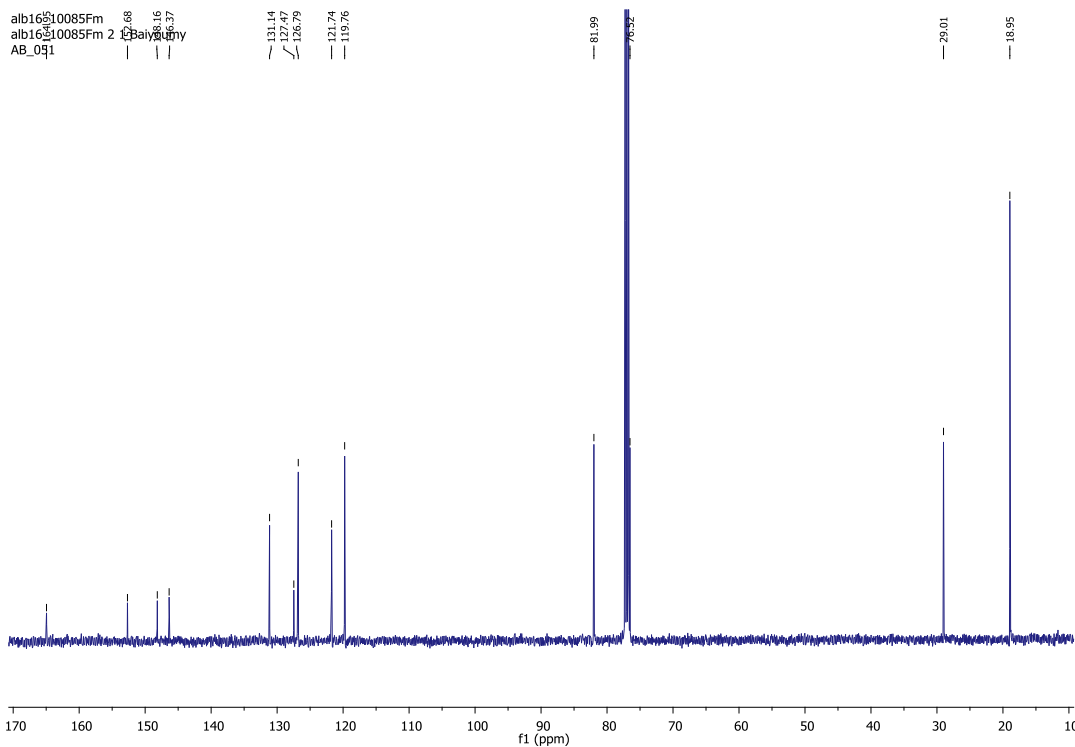
alb16\_10085Fm 2 Baiyoumy  
AB\_051

131.14  
127.47  
126.79  
121.74  
119.76

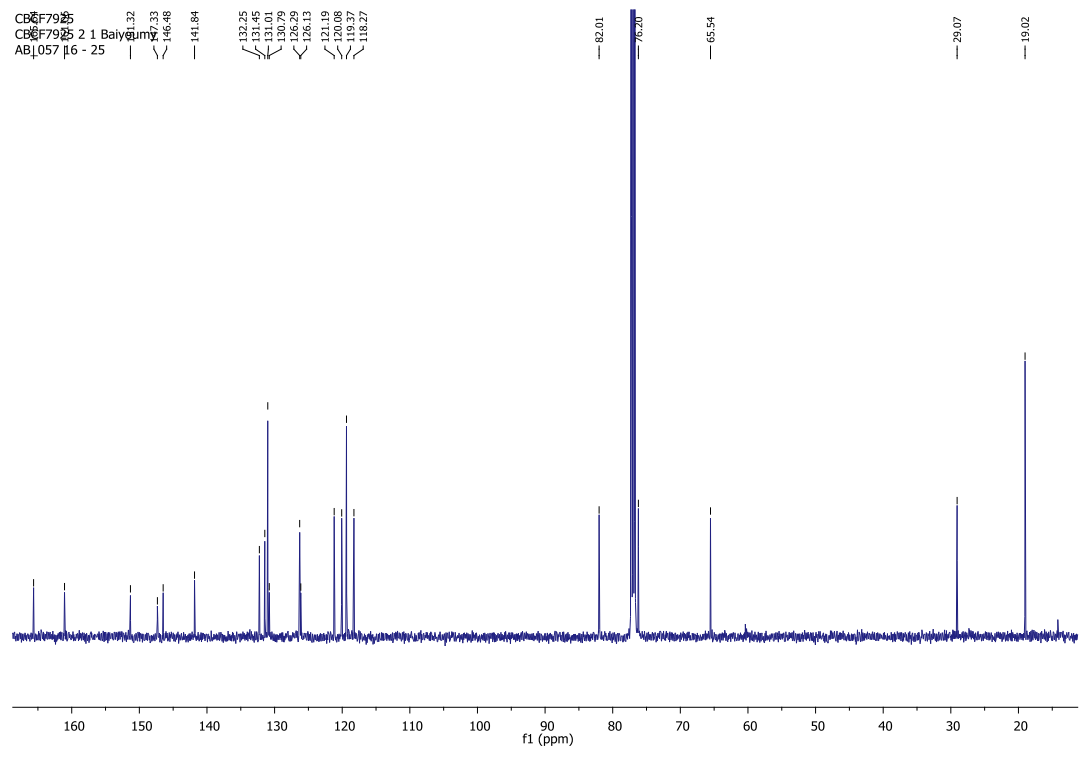
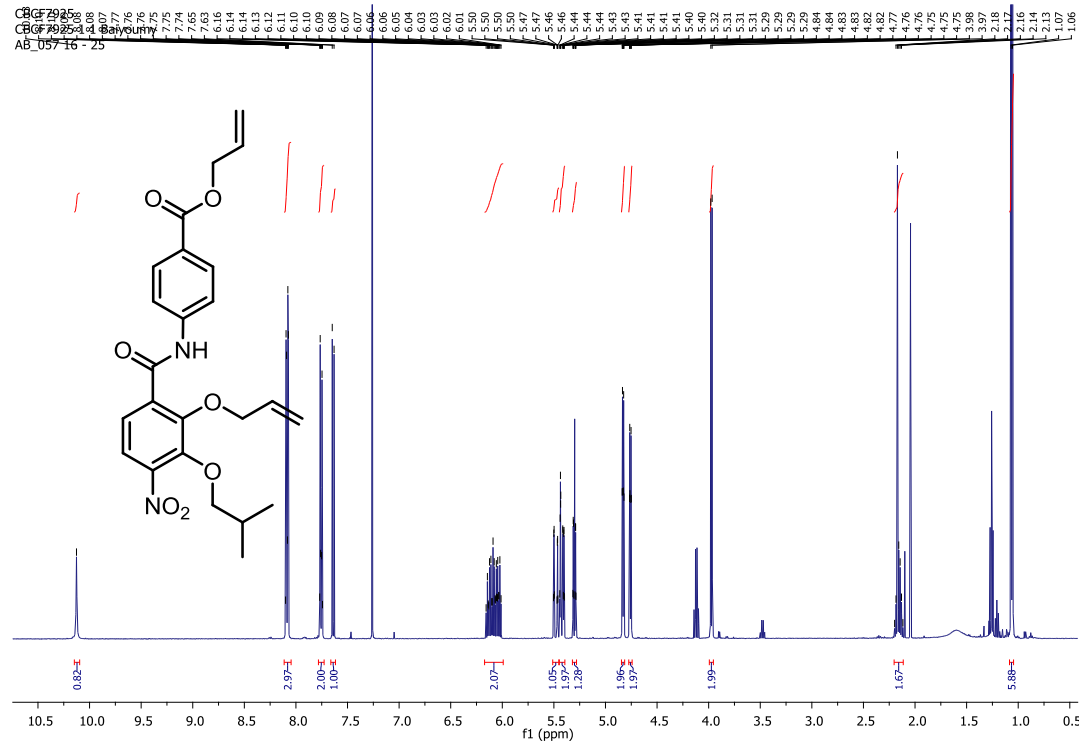
81.99

29.01

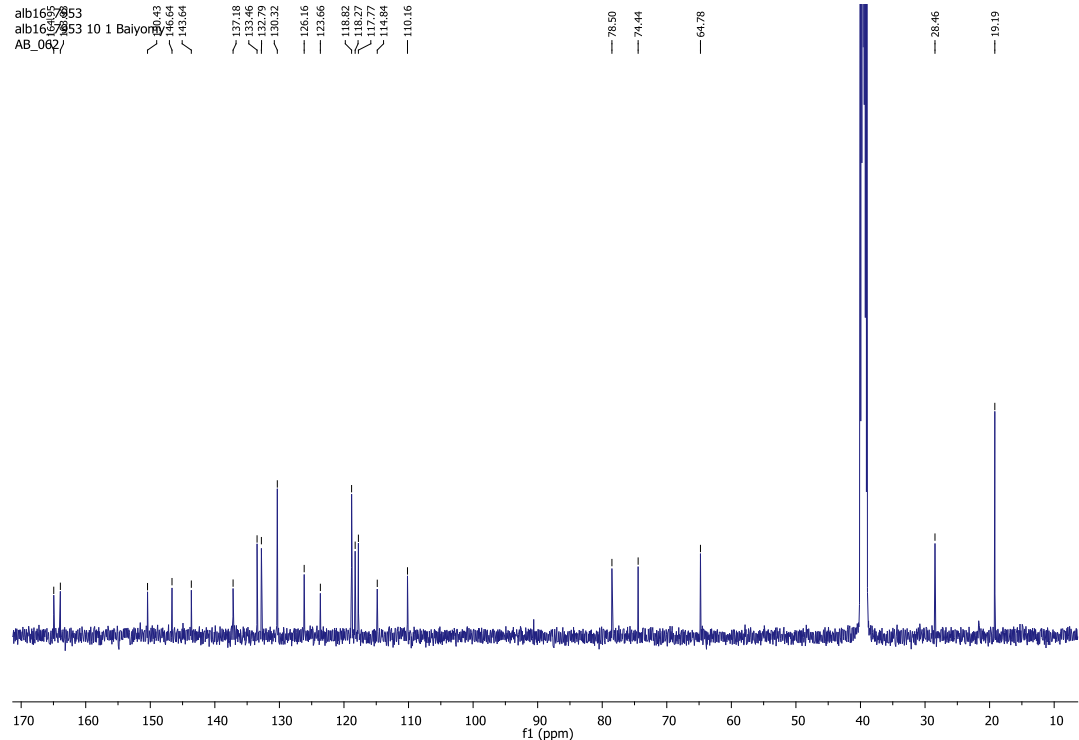
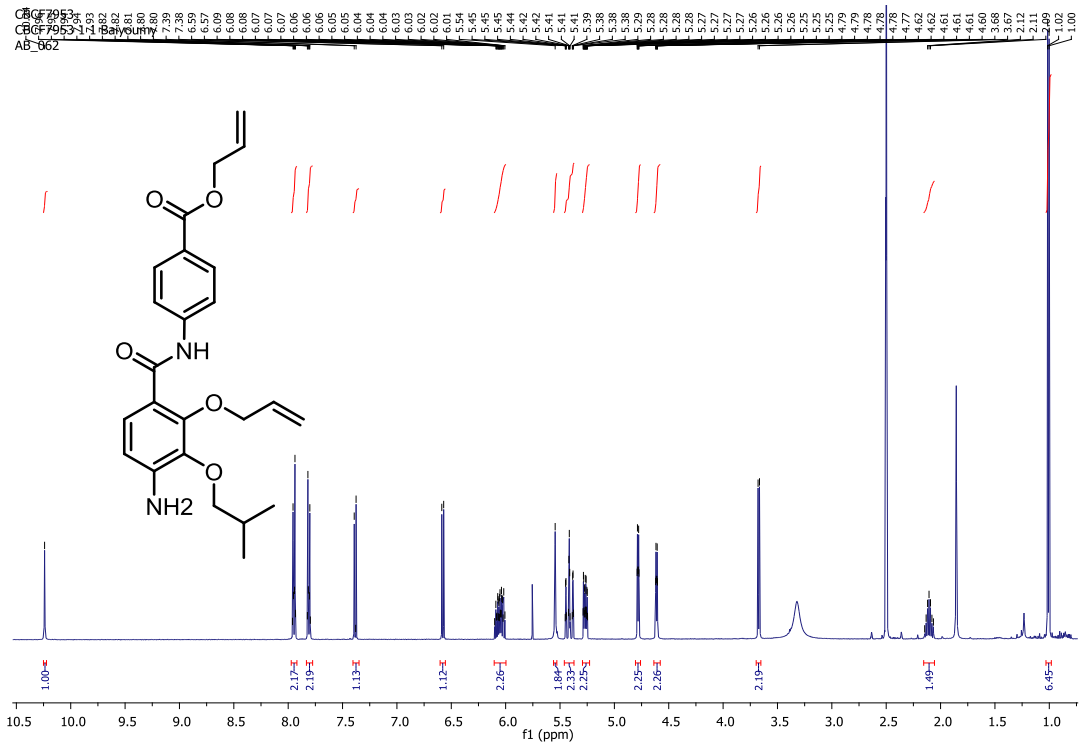
18.95



# Allyl 4-(2-(allyloxy)-3-isobutoxy-4-nitrobenzamido)benzoate

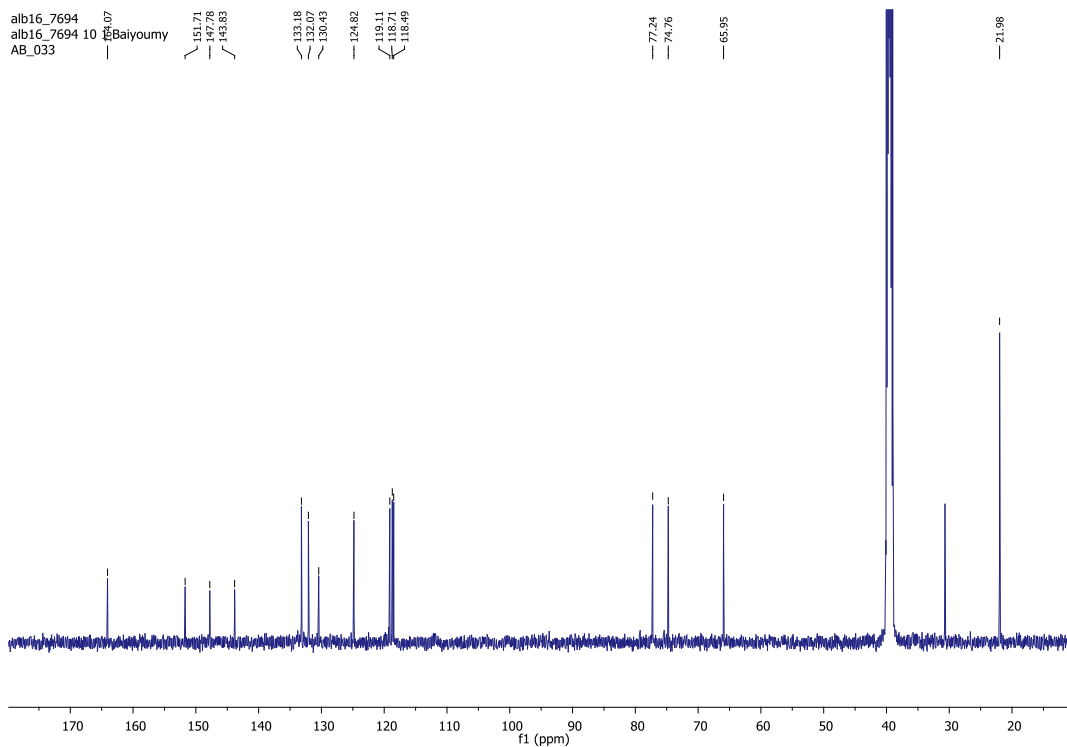
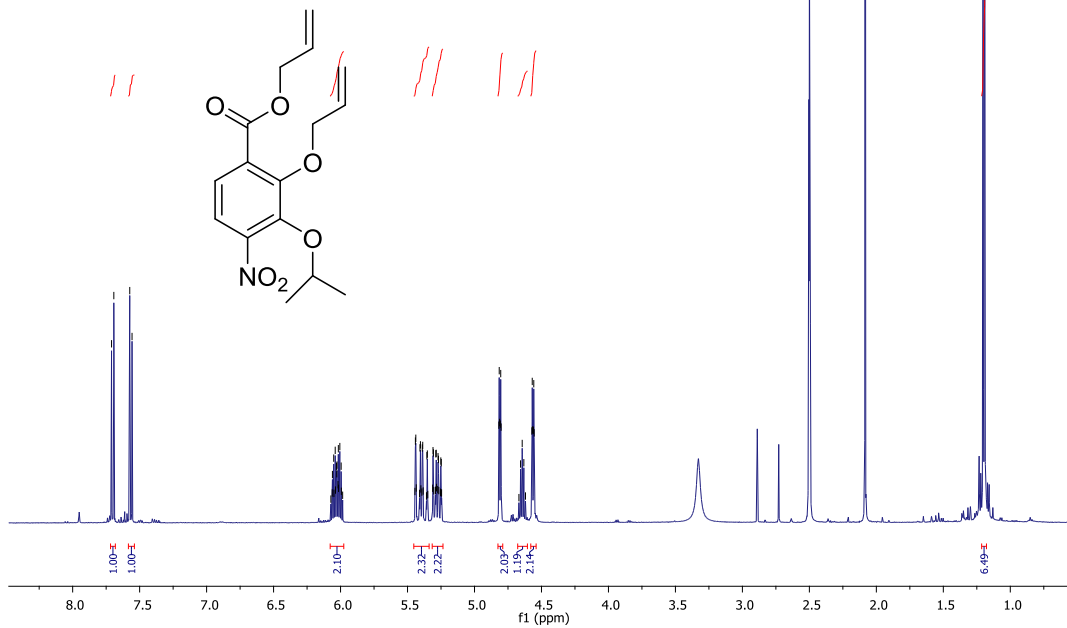


# Allyl 4-(2-(allyloxy)-4-amino-3-isobutoxybenzamido)benzoate



# Allyl 2-(allyloxy)-3-isopropoxy-4-nitrobenzoate

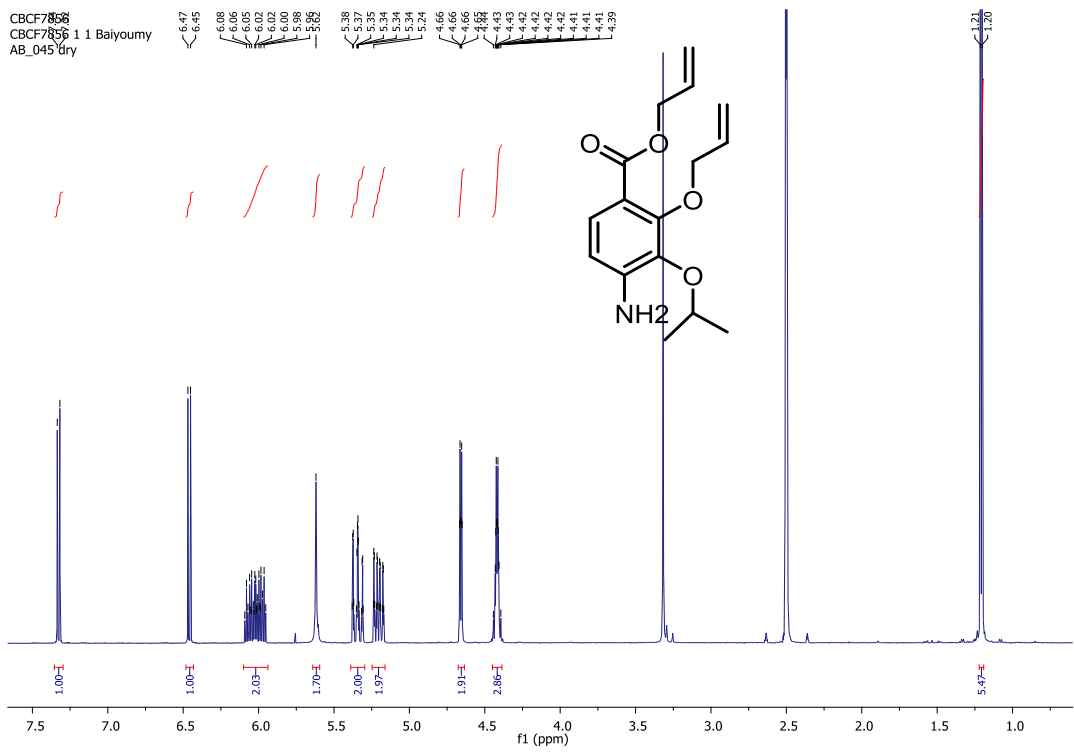
CBCF7694  
 CBCF7694 1 1 Baiyoumi  
 AB\_033



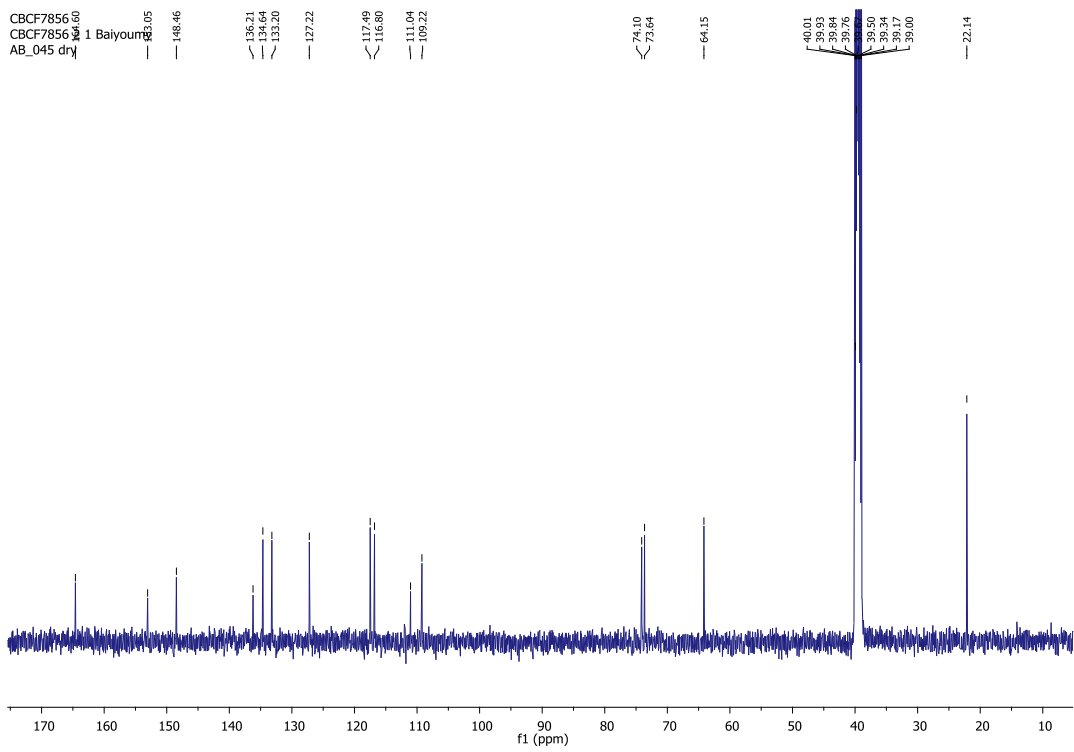


# Allyl 2-(allyloxy)-4-amino-3-isopropoxybenzoate

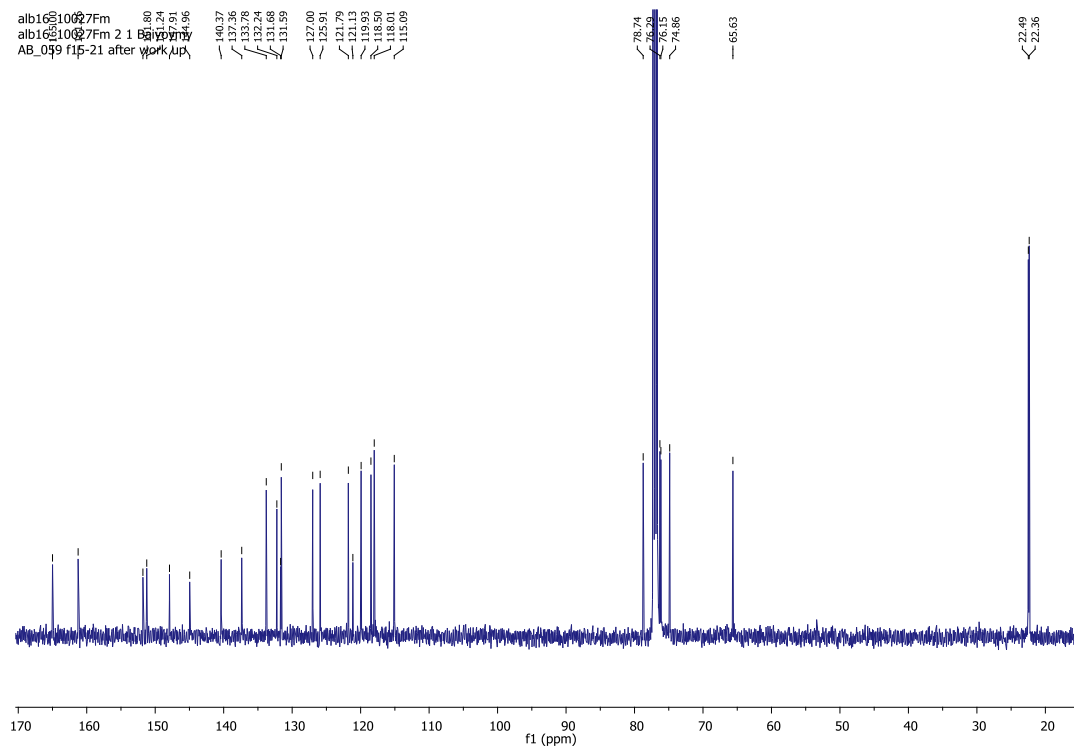
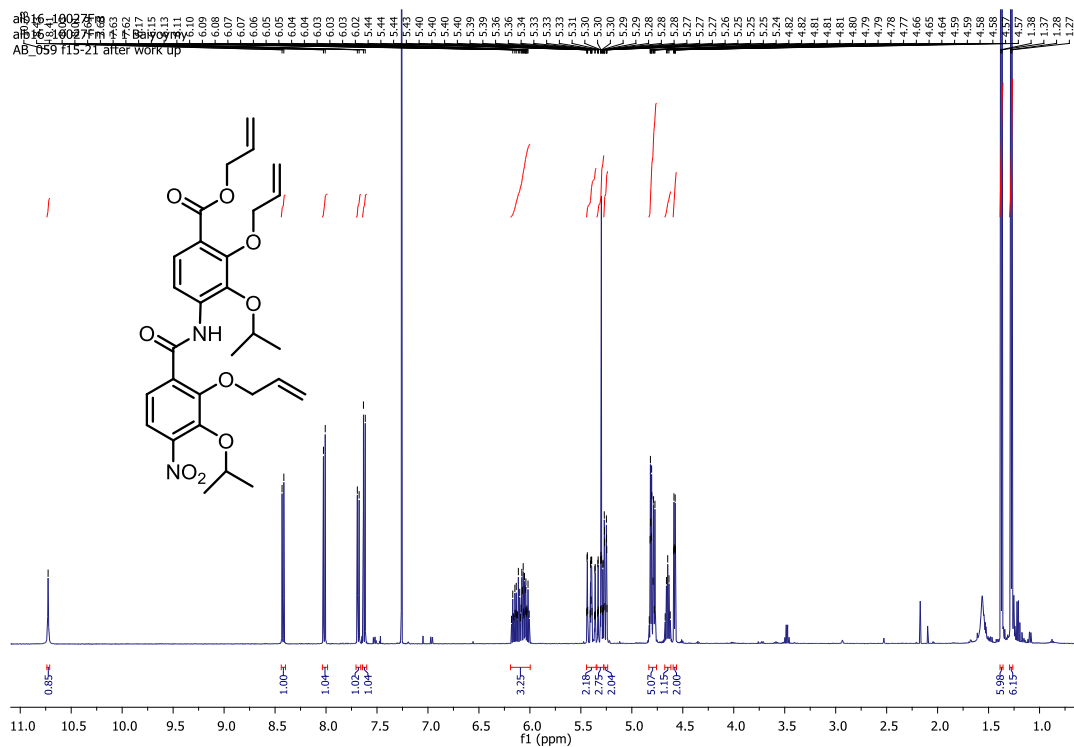
CBCF7856  
 CBCF7856 1 1 Baiyoumy  
 AB\_045 dry



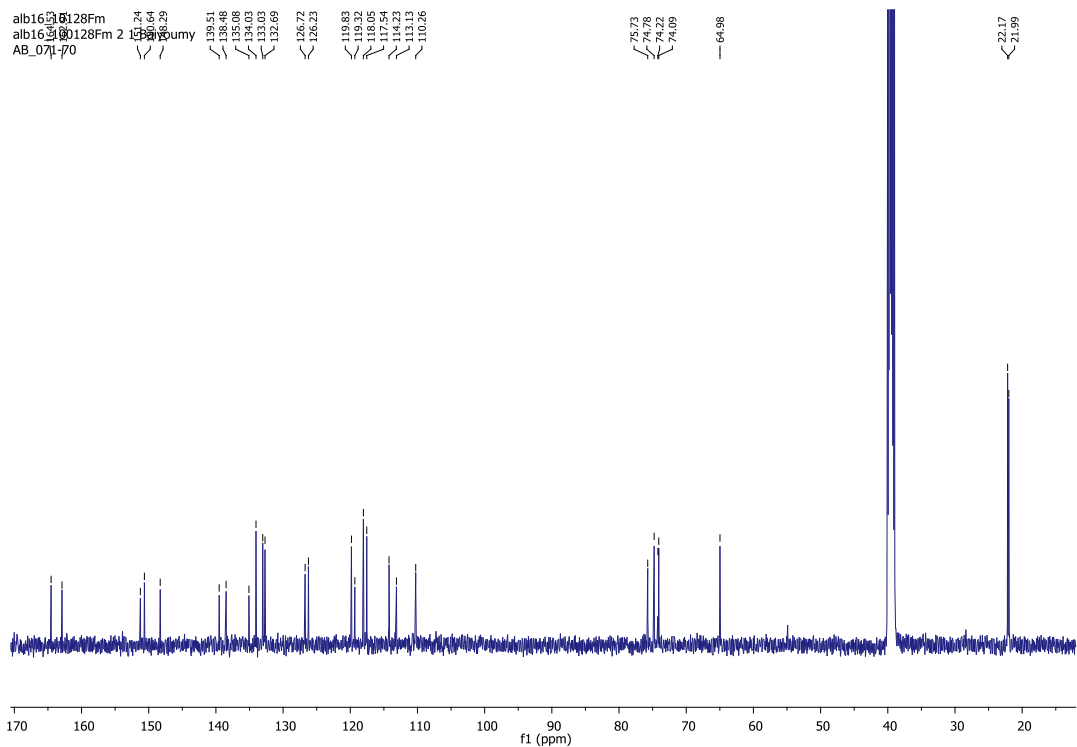
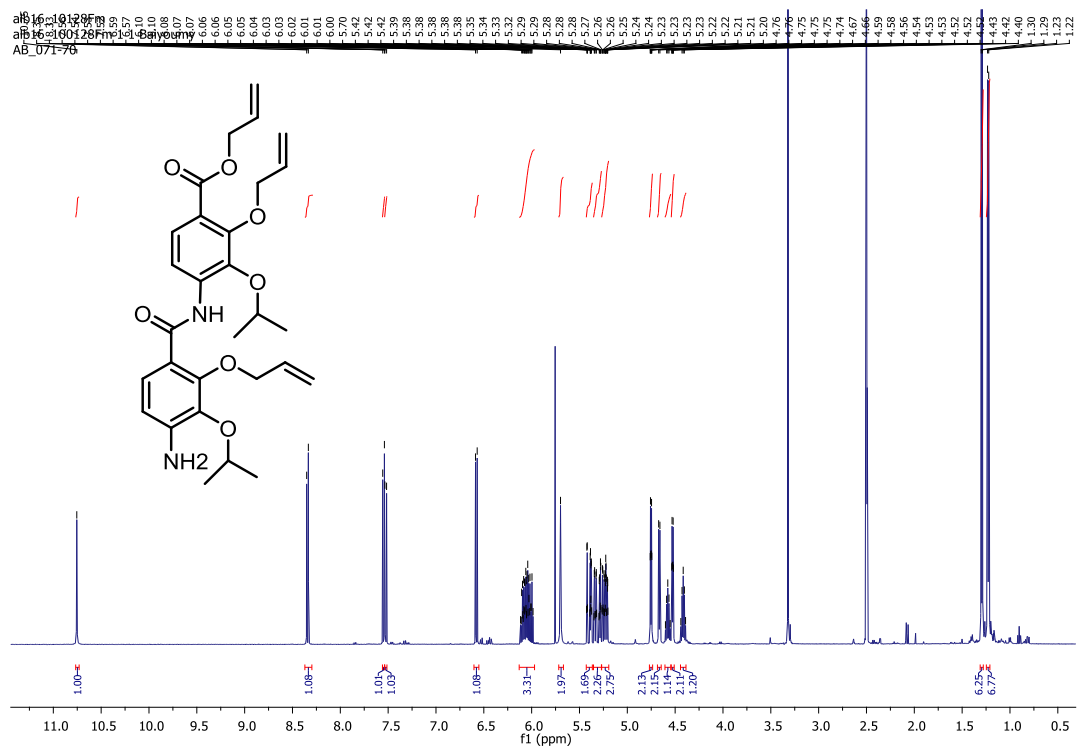
CBCF7856  
 CBCF7856 1 1 Baiyoumy  
 AB\_045 dry



# Allyl 2-(allyloxy)-4-(2-(allyloxy)-3-isopropoxy-4-nitrobenzamido)-3-isopropoxybenzoate

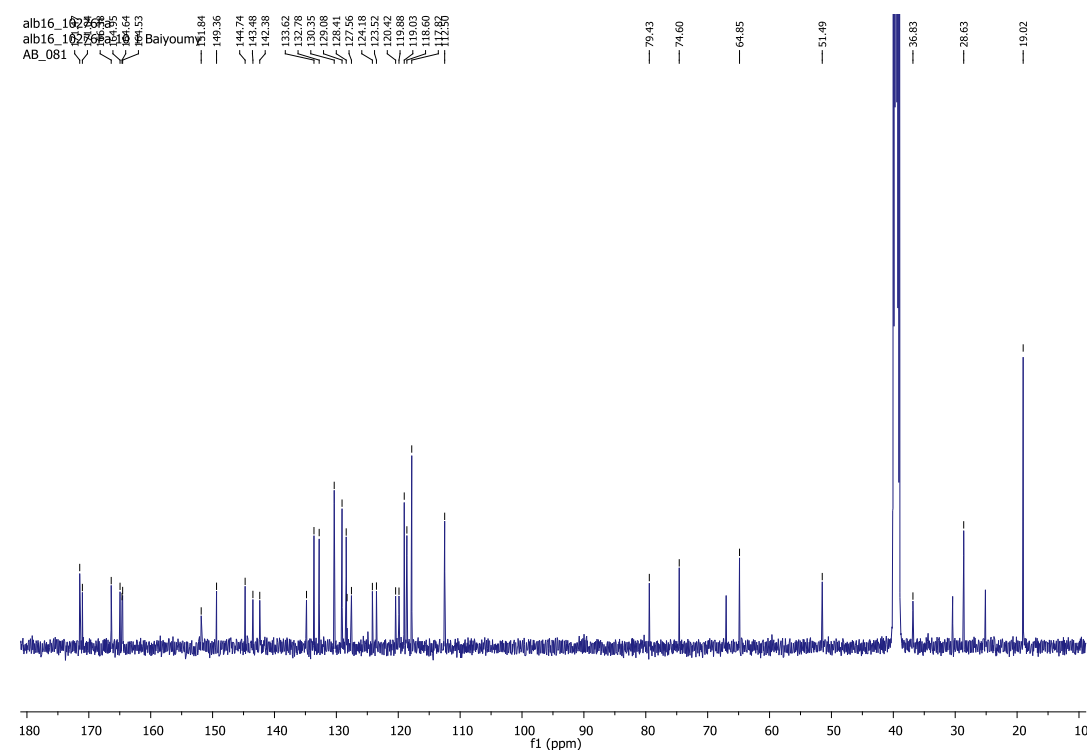
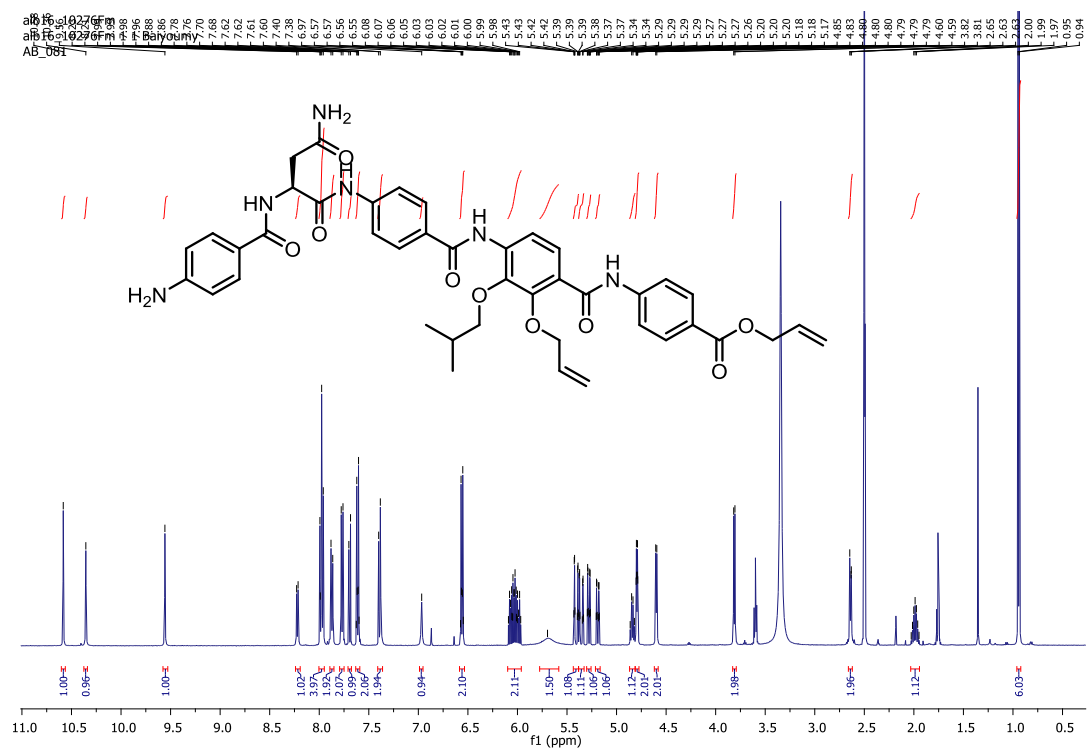


# Allyl 2-(allyloxy)-4-(2-(allyloxy)-4-amino-3-isopropoxybenzamido)-3-isopropoxybenzoate

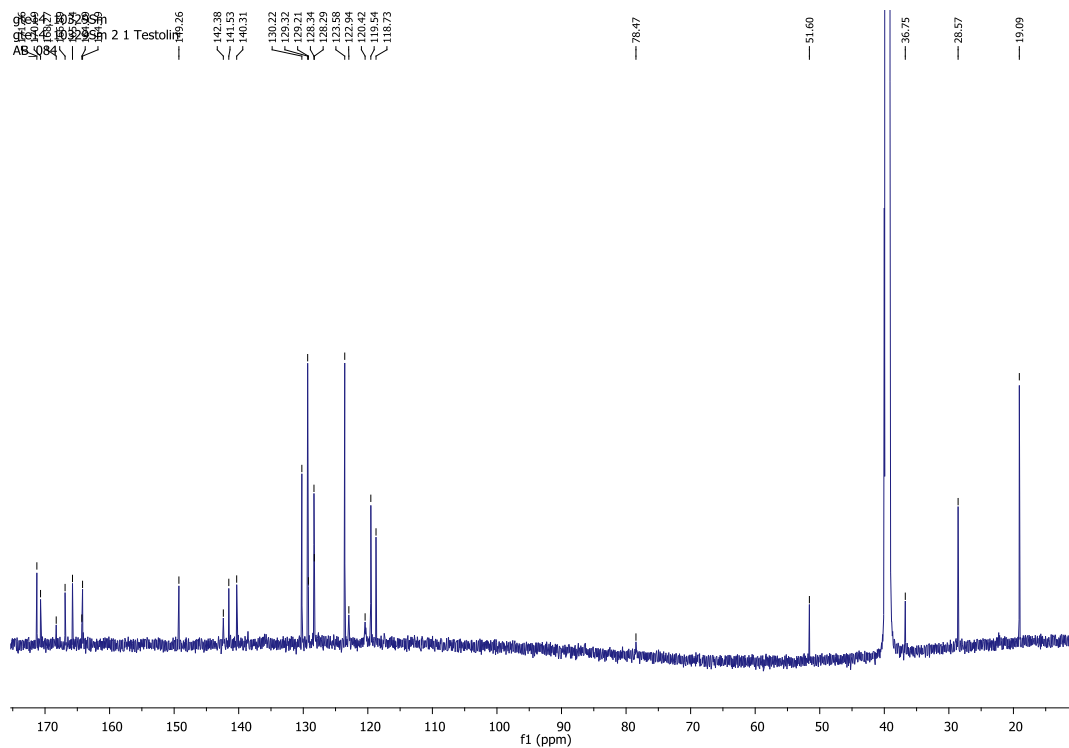
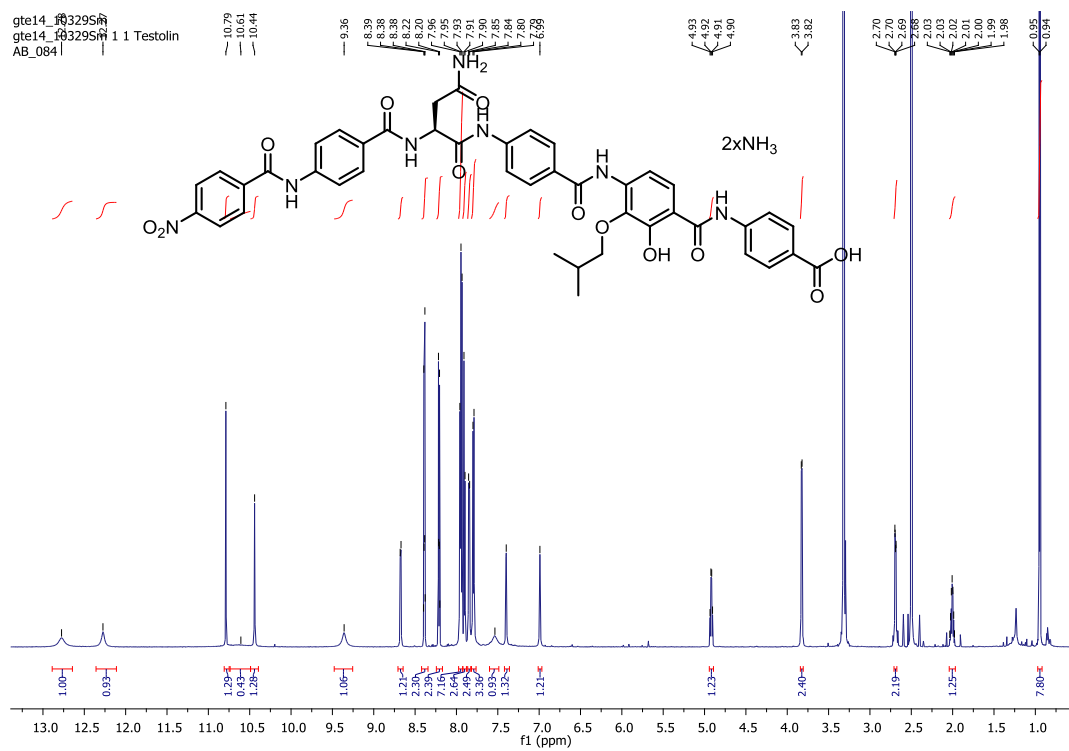




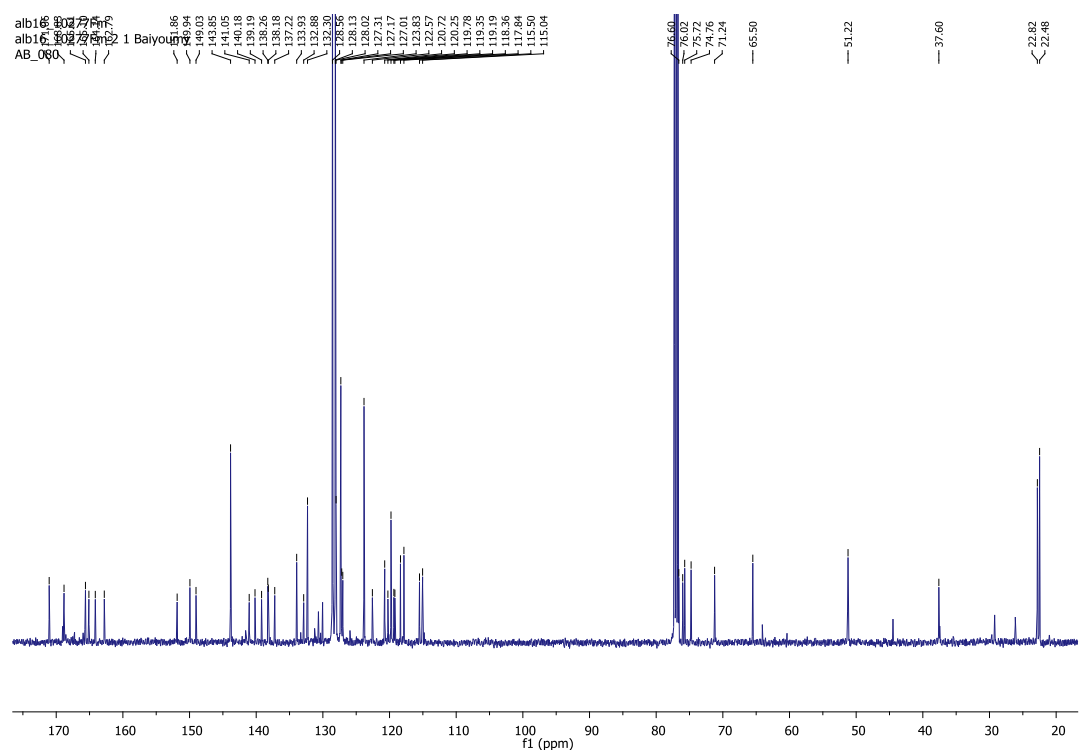
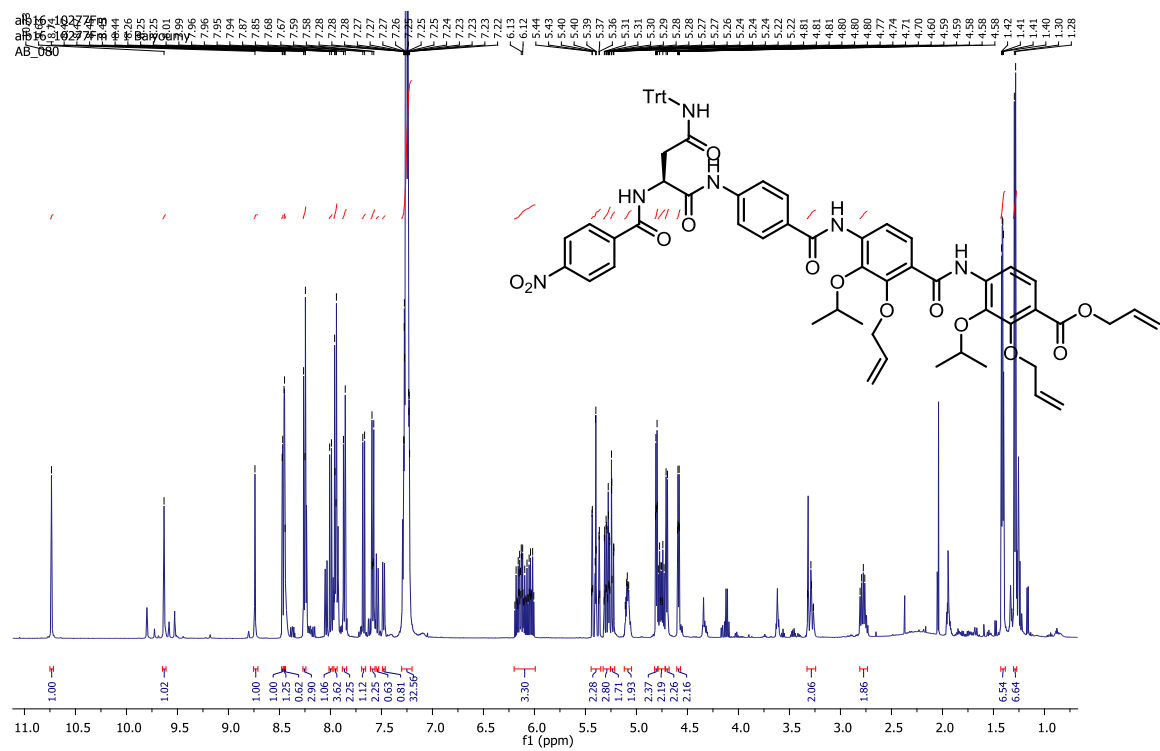
**Allyl (S)-4-(2-(allyloxy)-4-(4-(4-amino-2-(4-aminobenzamido)-4-oxobutanamido)benzamido)-3-isobutoxybenzamido)benzoate**



**(S)-4-(4-(4-(4-Amino-2-(4-(4-nitrobenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isobutoxybenzamido)benzoic acid**

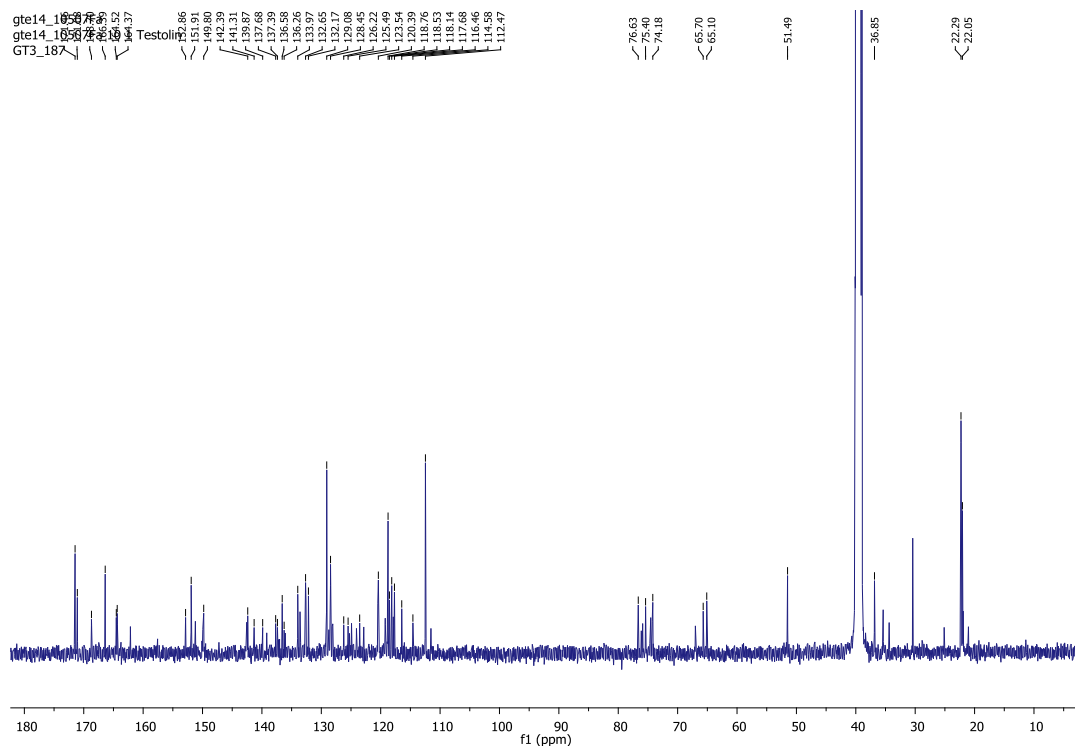
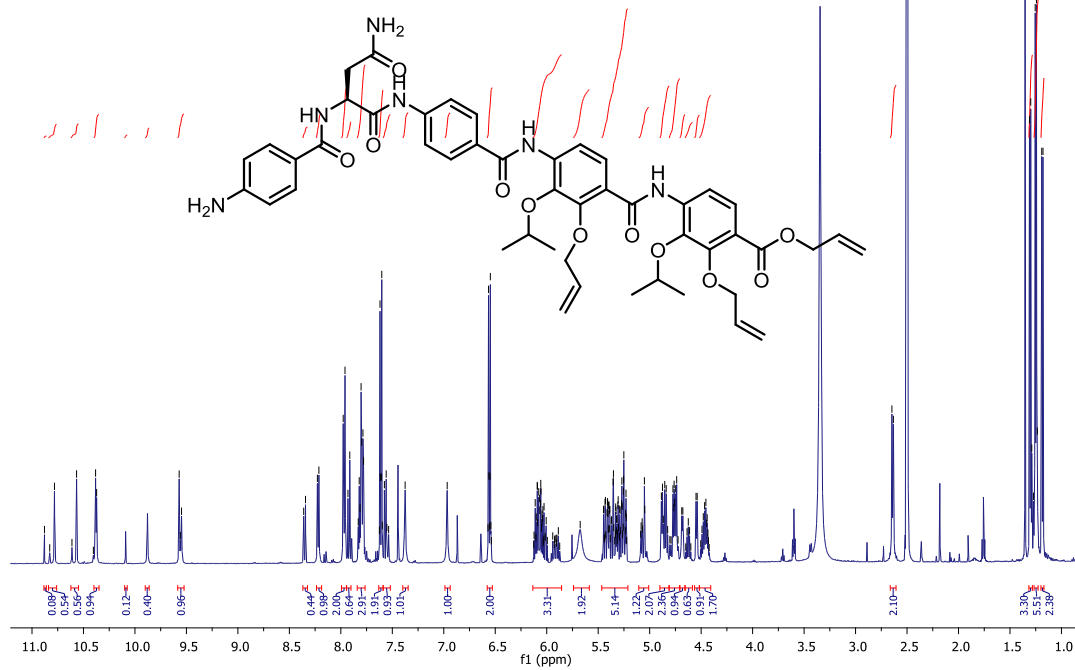


**Allyl (S)-2-(allyloxy)-4-(2-(allyloxy)-3-isopropoxy-4-(4-(2-(4-nitrobenzamido)-4-oxo-4-(tritylamino)butanamido)benzamido)benzamido)-3-isopropoxybenzoate**



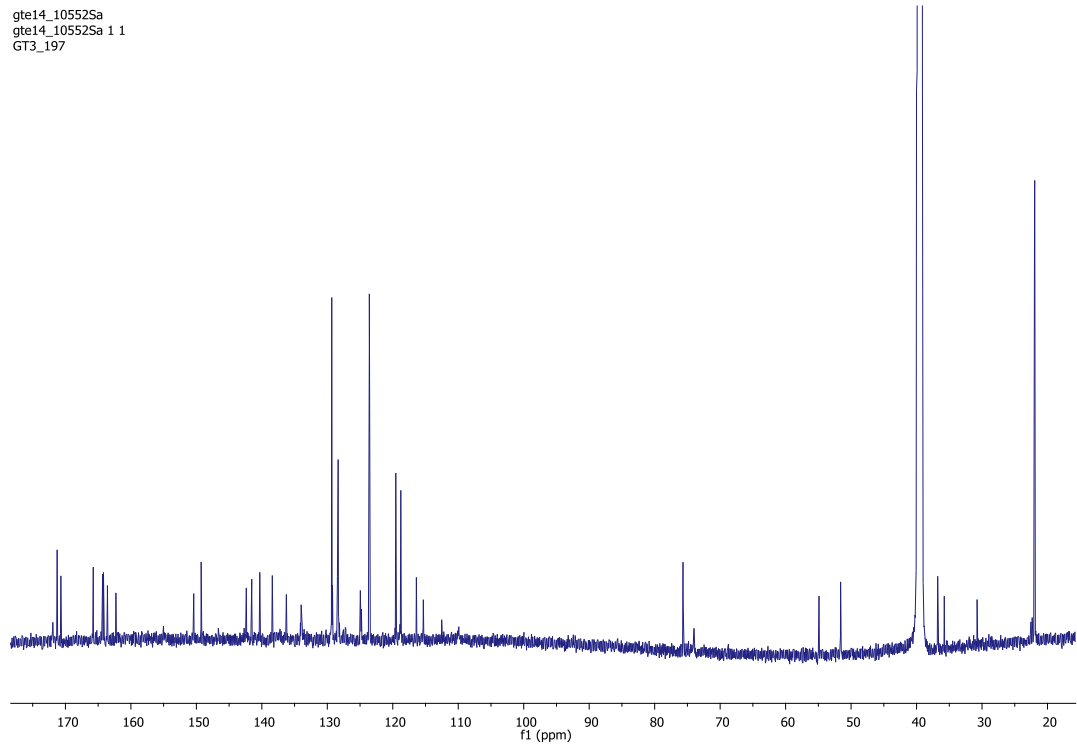
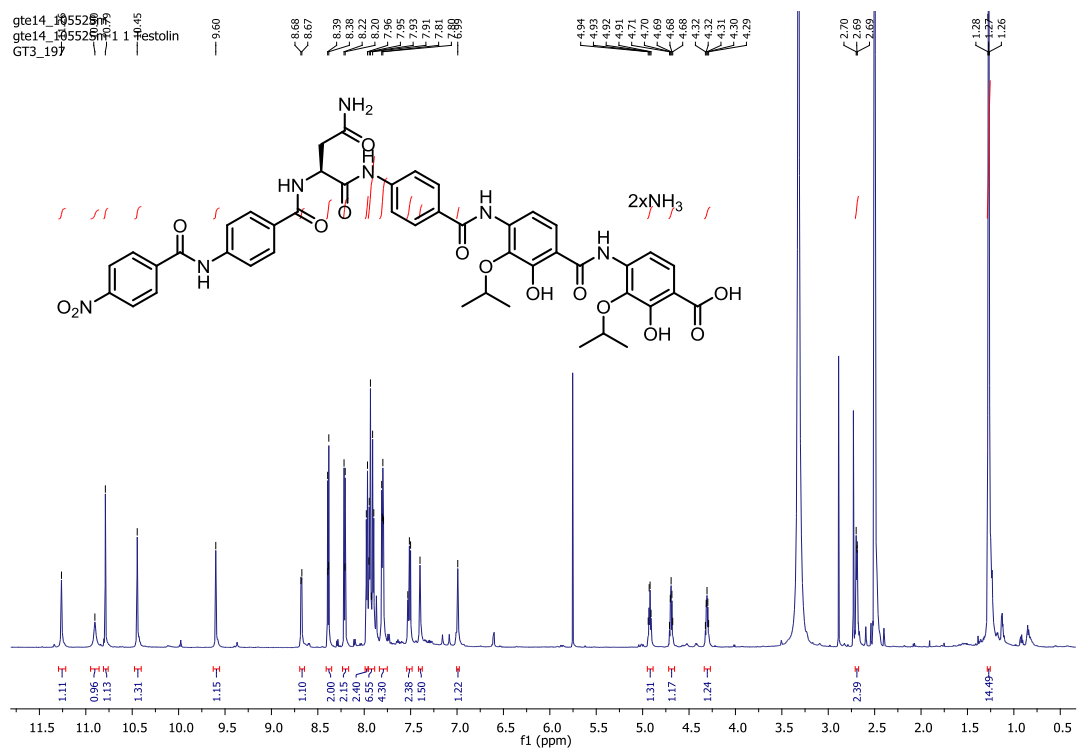
# Allyl (S)-2-(allyloxy)-4-(2-(allyloxy)-4-(4-(4-amino-2-(4-aminobenzamido)-4-oxobutanamido)benzamido)-3-isopropoxybenzamido)-3-isopropoxybenzoate

gte14\_1050781  
 gte14\_1050781 Testolin  
 GT3\_187  
 traces of THF(1% in weight) and BHT present



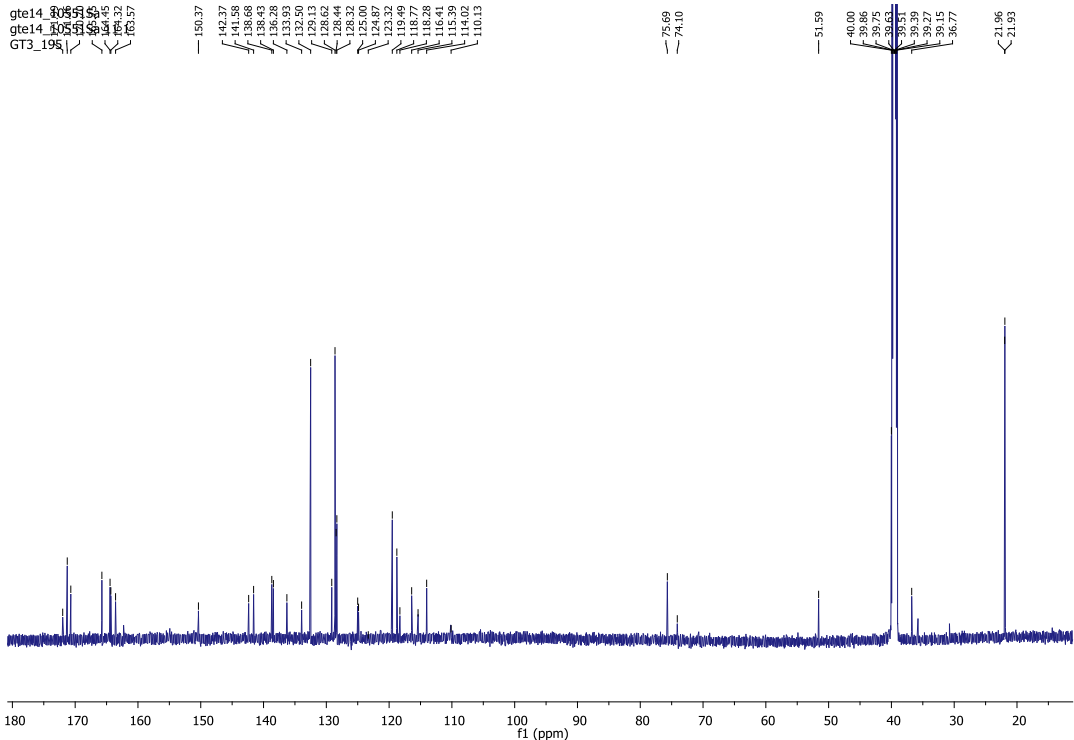
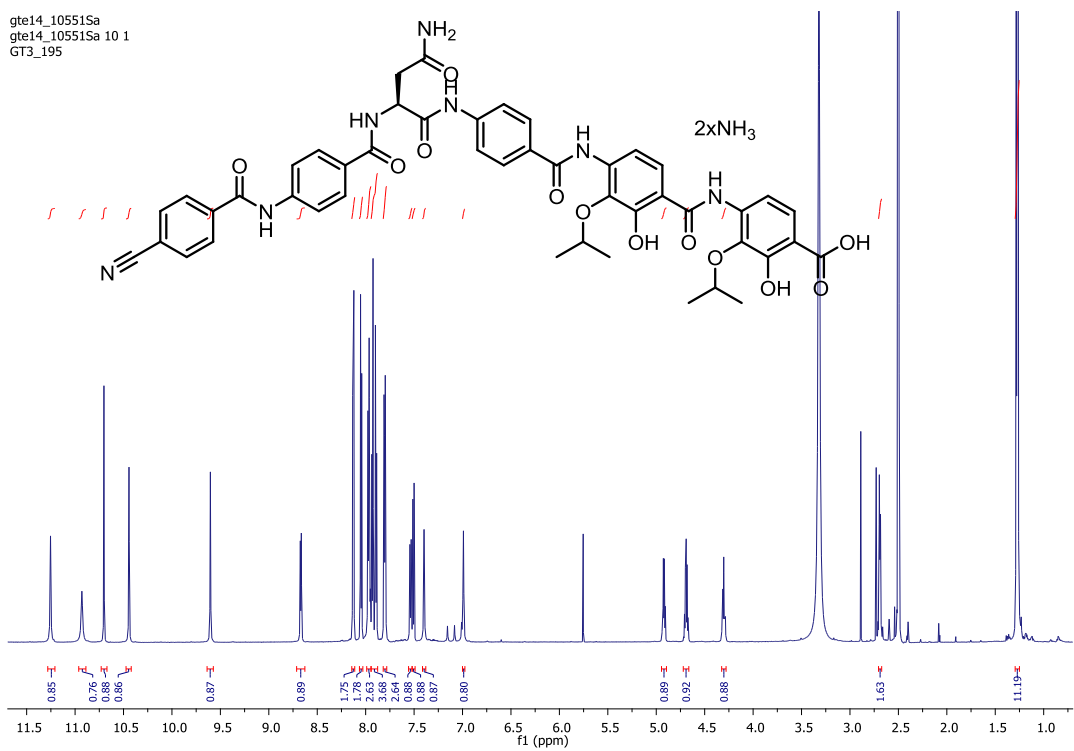


**(S)-4-(4-(4-(4-Amino-2-(4-(4-nitrobenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)-2-hydroxy-3-isopropoxybenzoic acid**

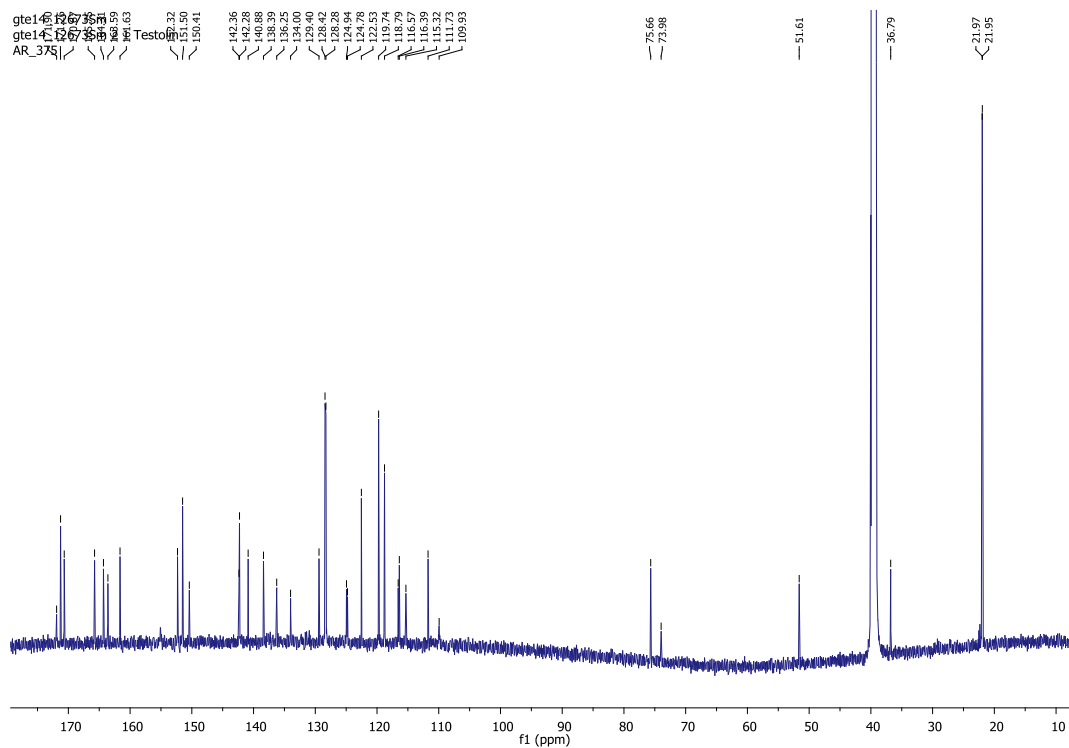
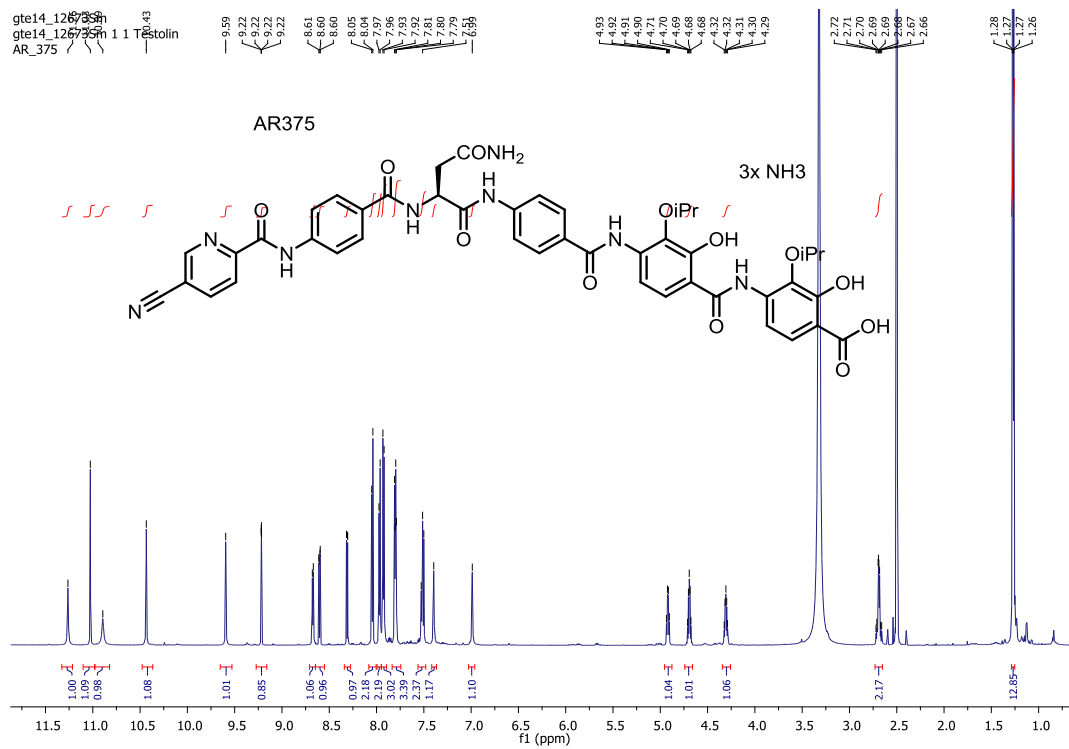


**(S)-4-(4-(4-(4-Amino-2-(4-(4-cyanobenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)-2-hydroxy-3-isopropoxybenzoic acid**

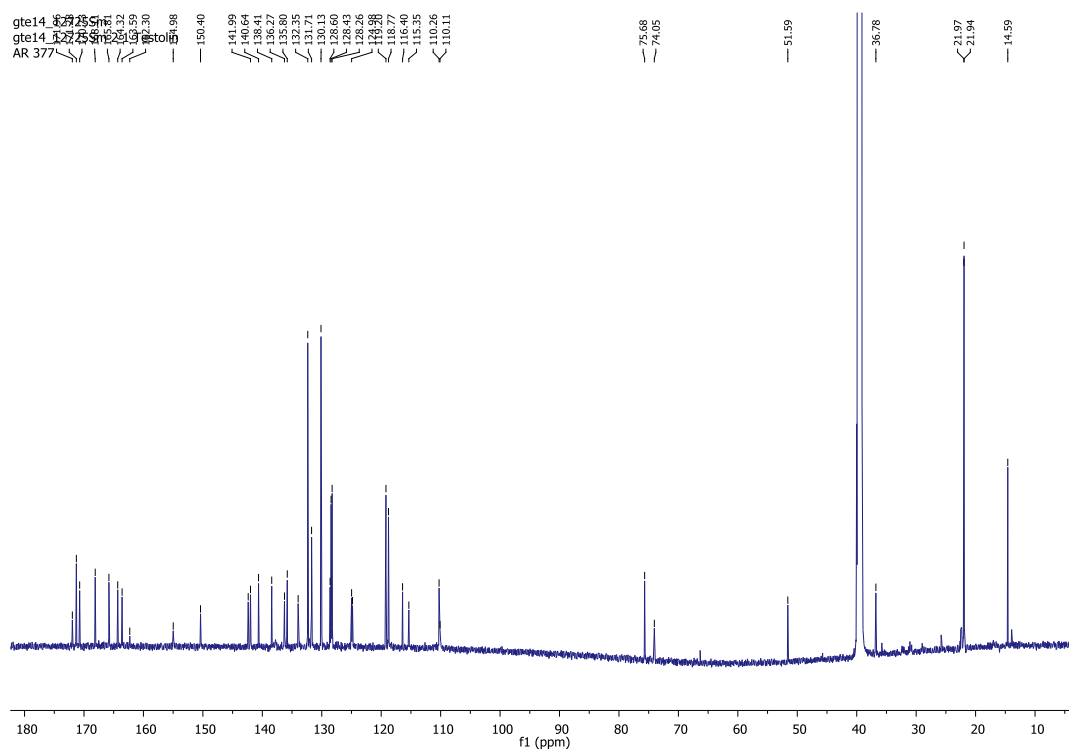
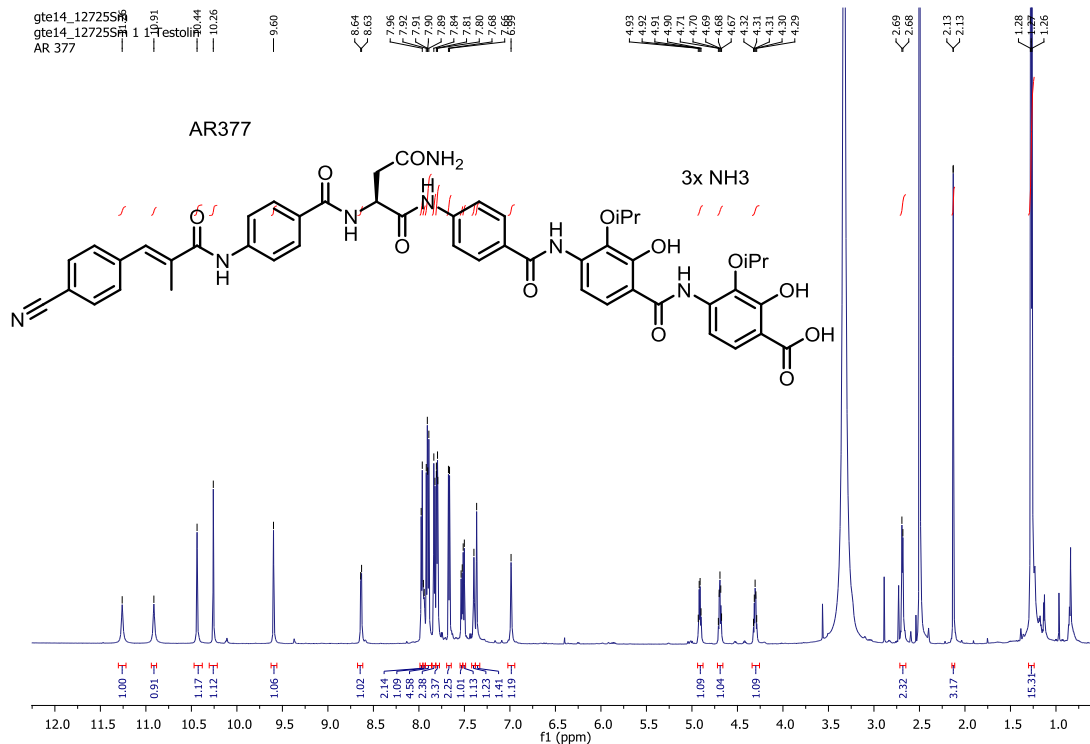
gte14\_10551Sa  
gte14\_10551Sa 10 1  
GT3\_195



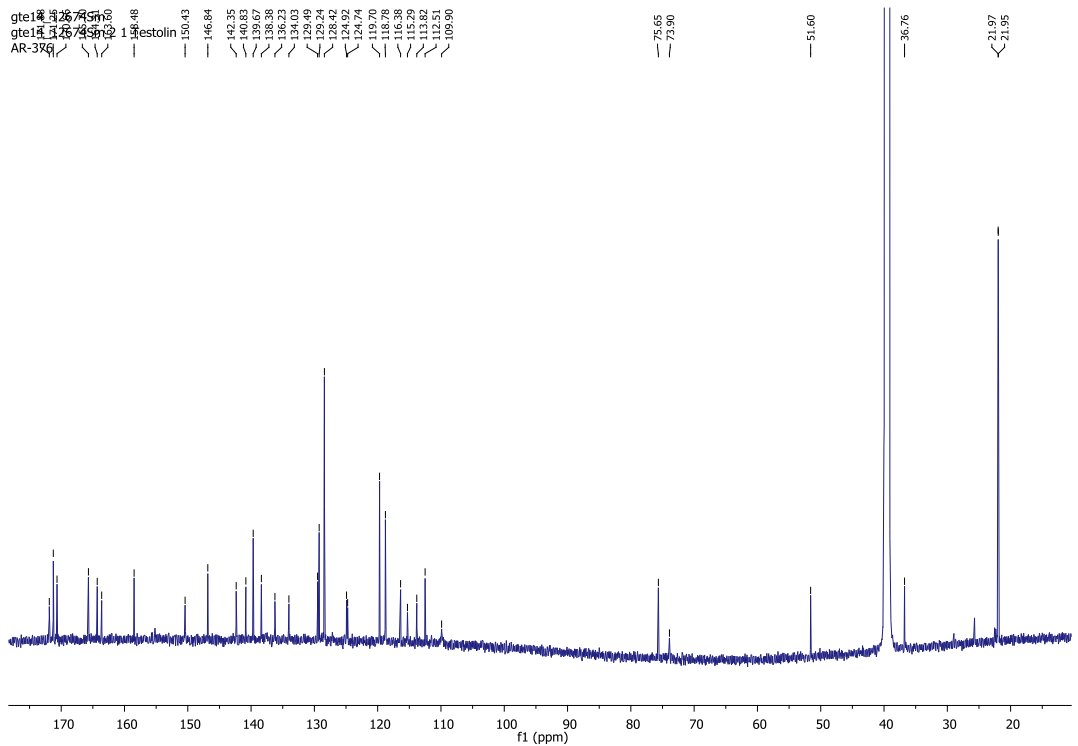
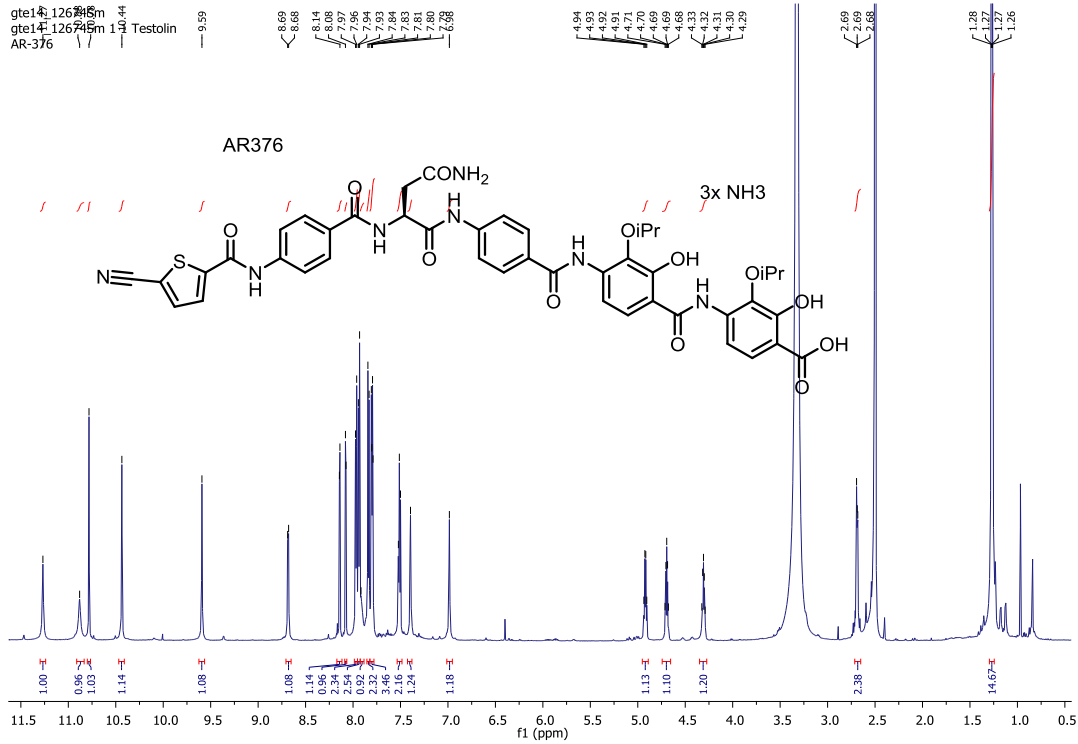
**(S)-4-(4-(4-(4-Amino-2-(4-(5-cyanopicolinamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)-2-hydroxy-3-isopropoxybenzoic acid**



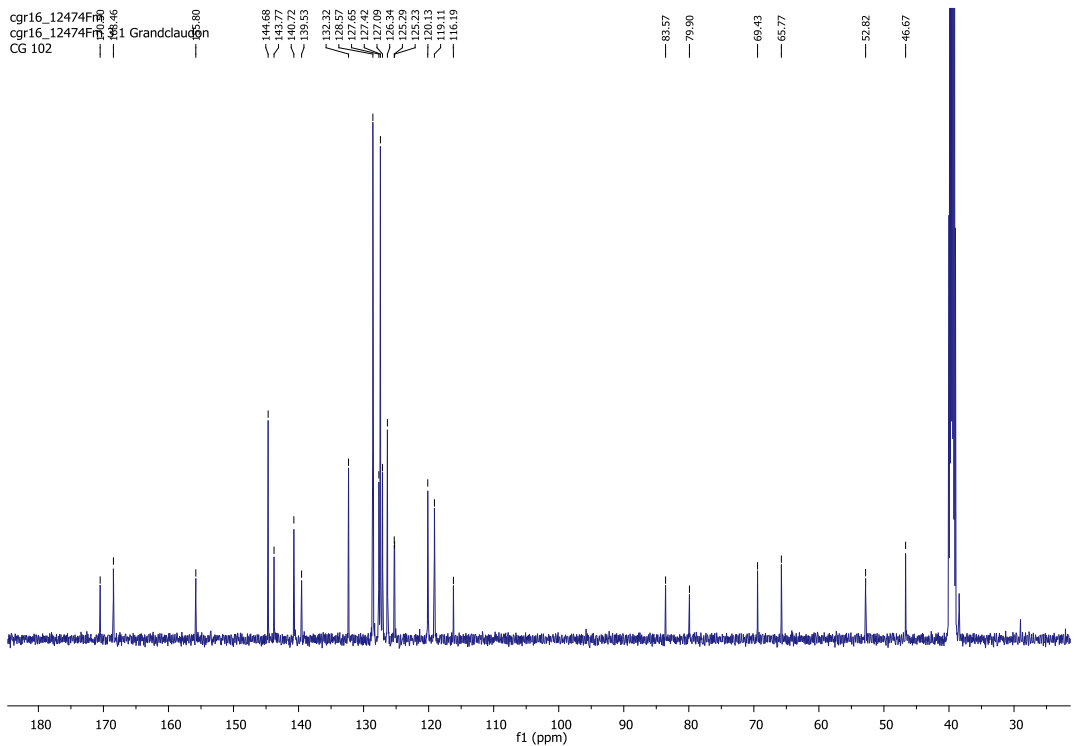
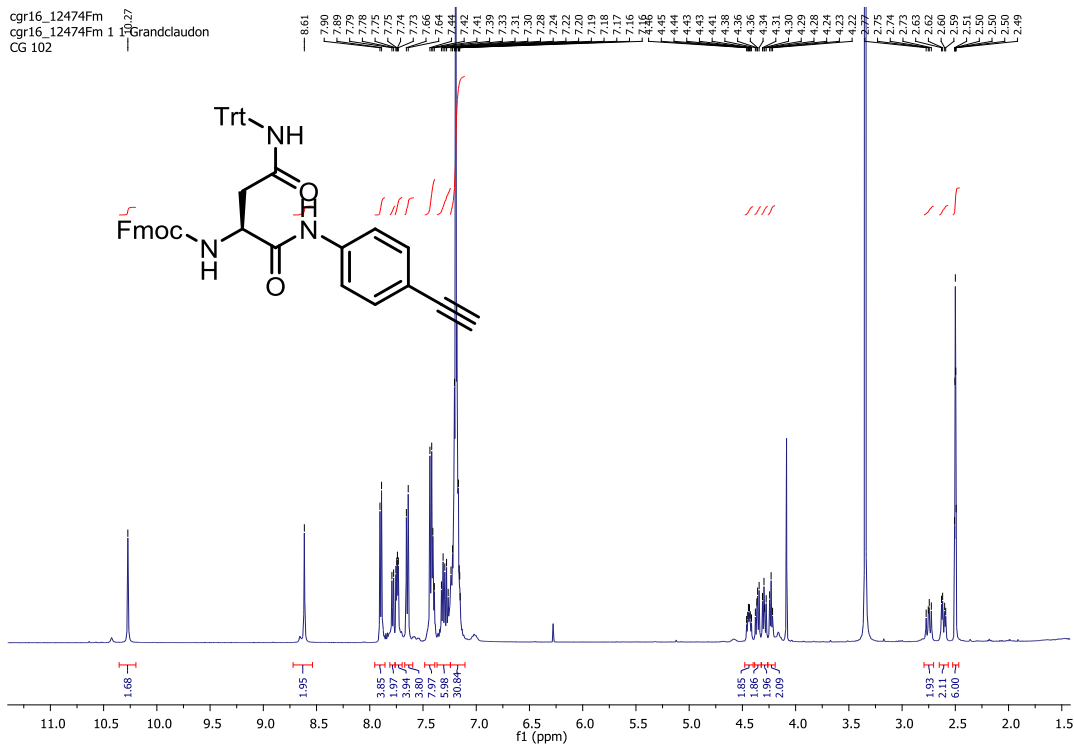
**(S,E)-4-(4-(4-(4-Amino-2-(4-(3-(4-cyanophenyl)-2-methylacrylamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)-2-hydroxy-3-isopropoxybenzoic acid**



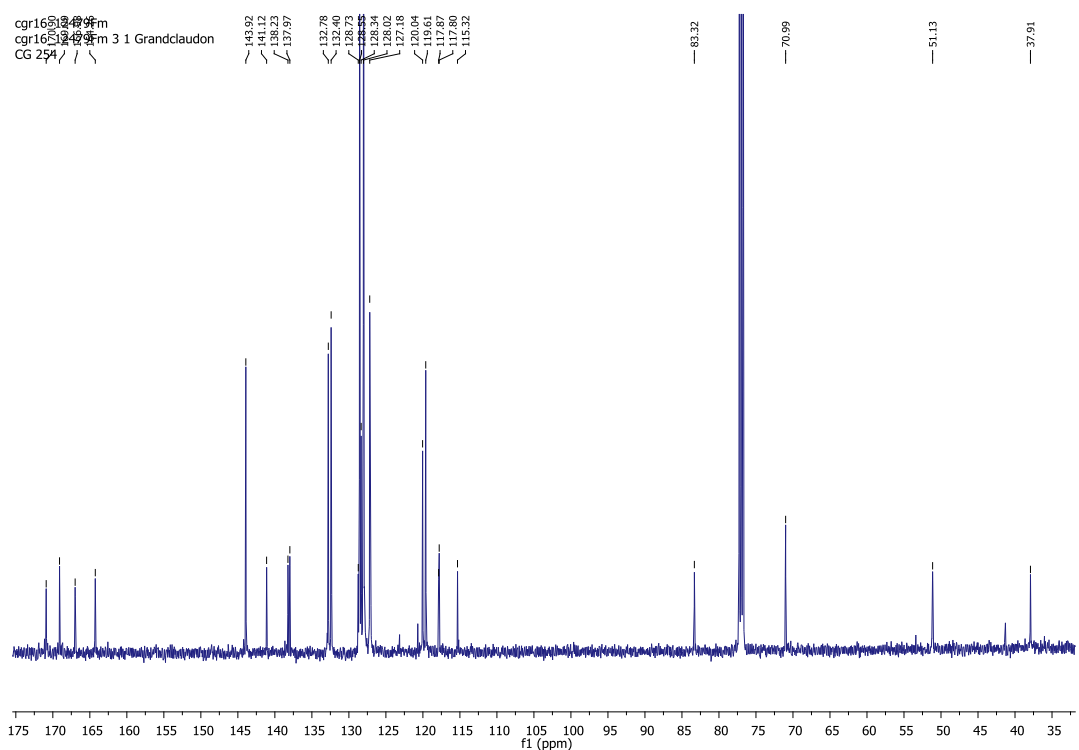
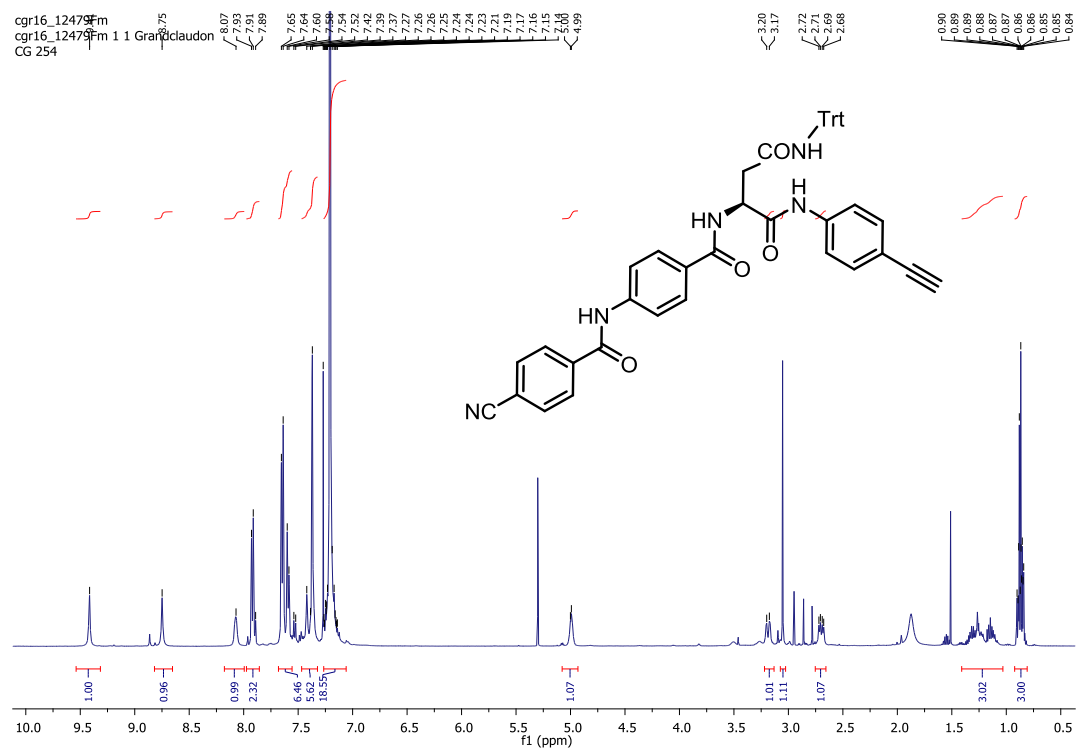
# (S)-4-(4-(4-(4-Amino-2-(4-(5-cyanothiophene-2-carboxamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)-2-hydroxy-3-isopropoxybenzoic acid



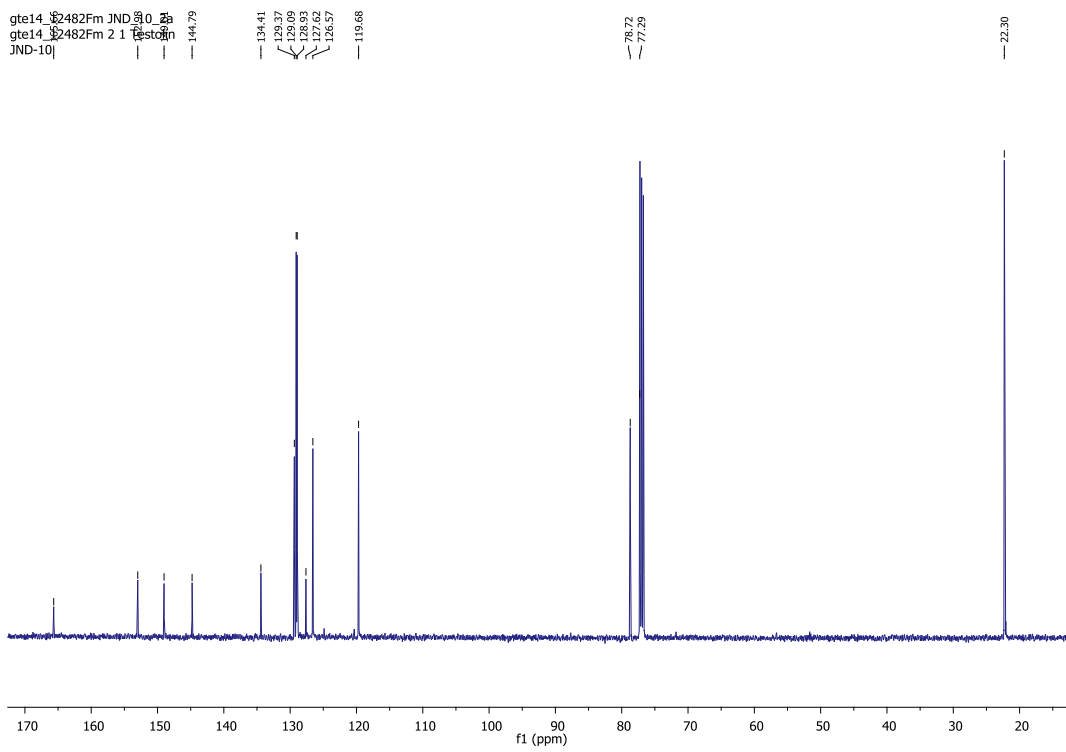
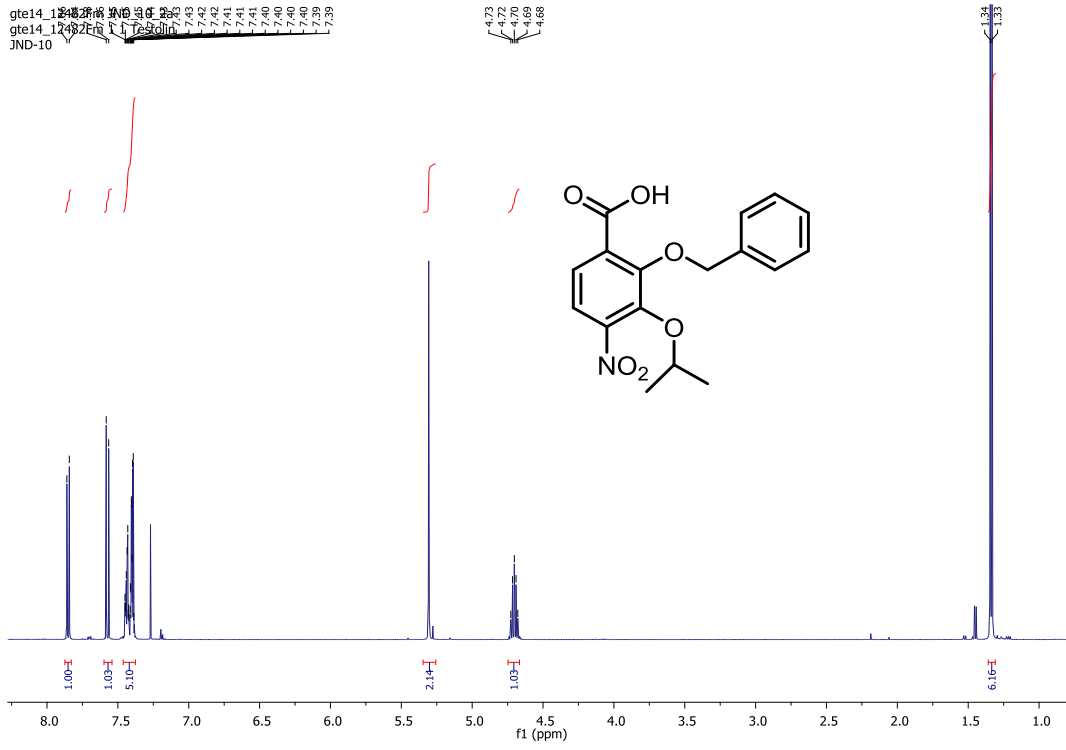
**(9H-Fluoren-9-yl)methyl (1-((4-ethynylphenyl)amino)-1,4-dioxo-4-(tritylamino)butan-2-yl)carbamate**



**(S)-2-(4-(4-Cyanobenzamido)benzamido)-N1-(4-ethynylphenyl)-N4-tritylsuccinamide**

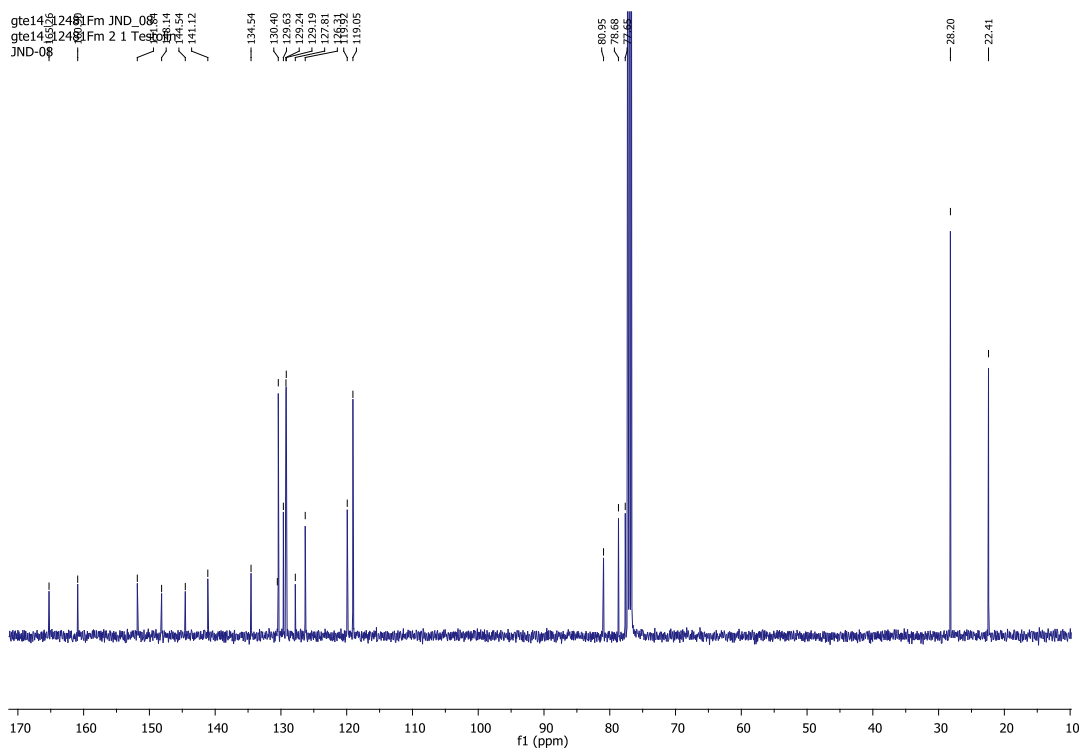
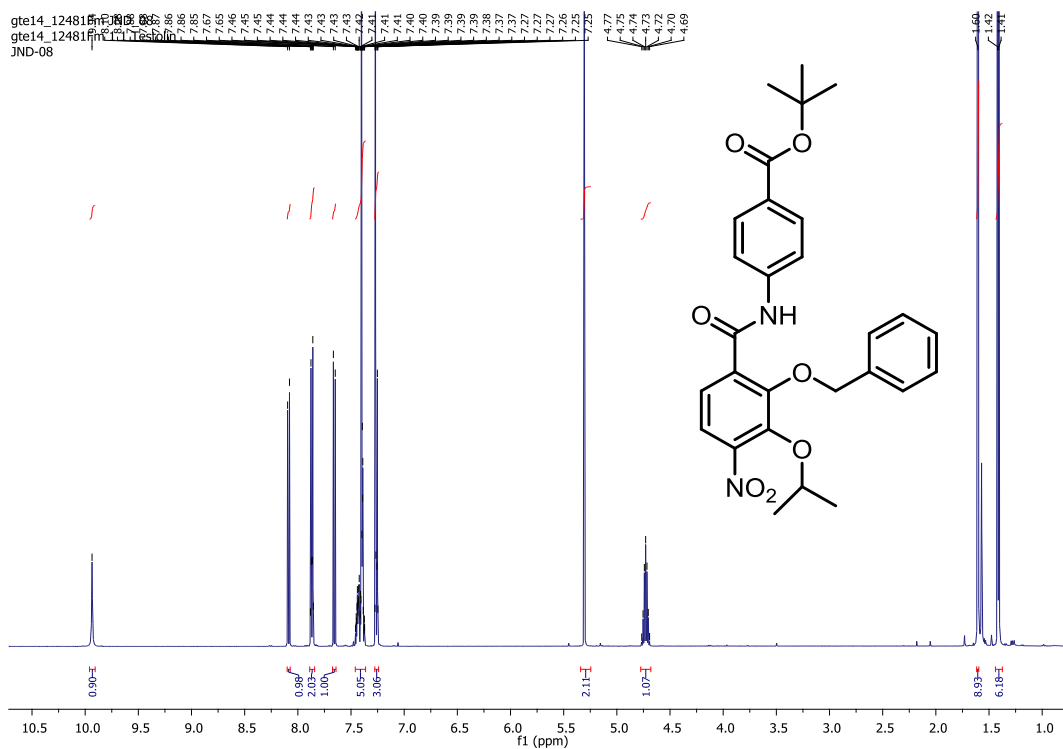


# 2-(Benzyloxy)-3-isopropoxy-4-nitrobenzoic acid



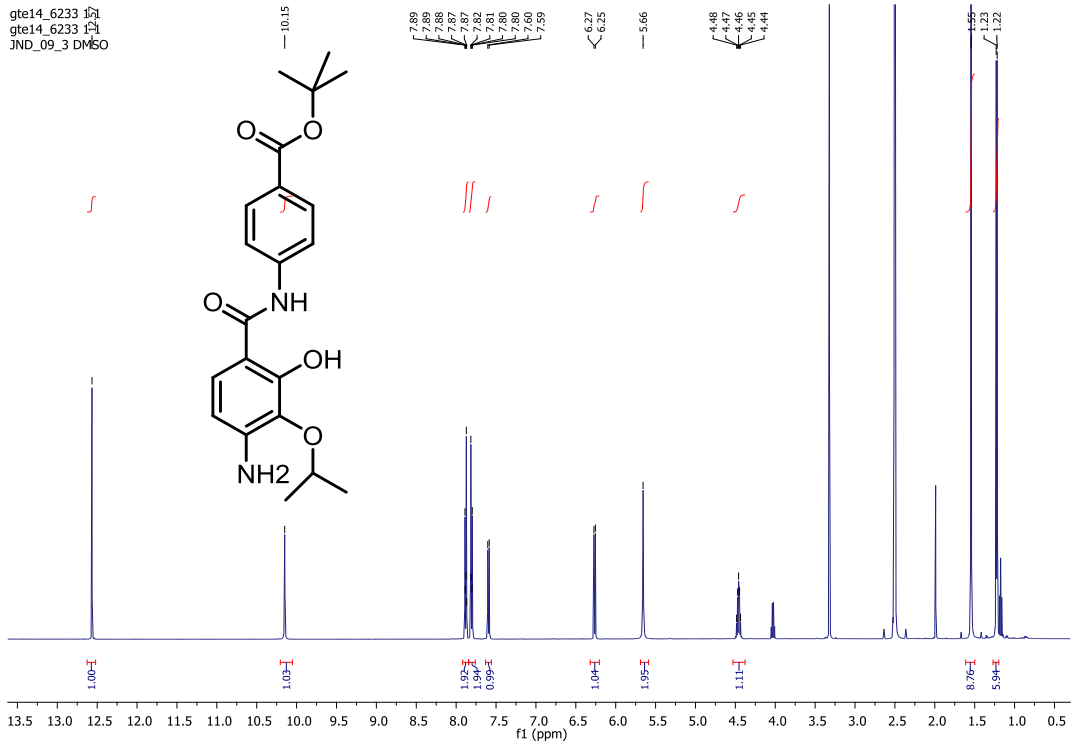


# Tert-butyl 4-(2-(benzyloxy)-3-isopropoxy-4-nitrobenzamido)benzoate

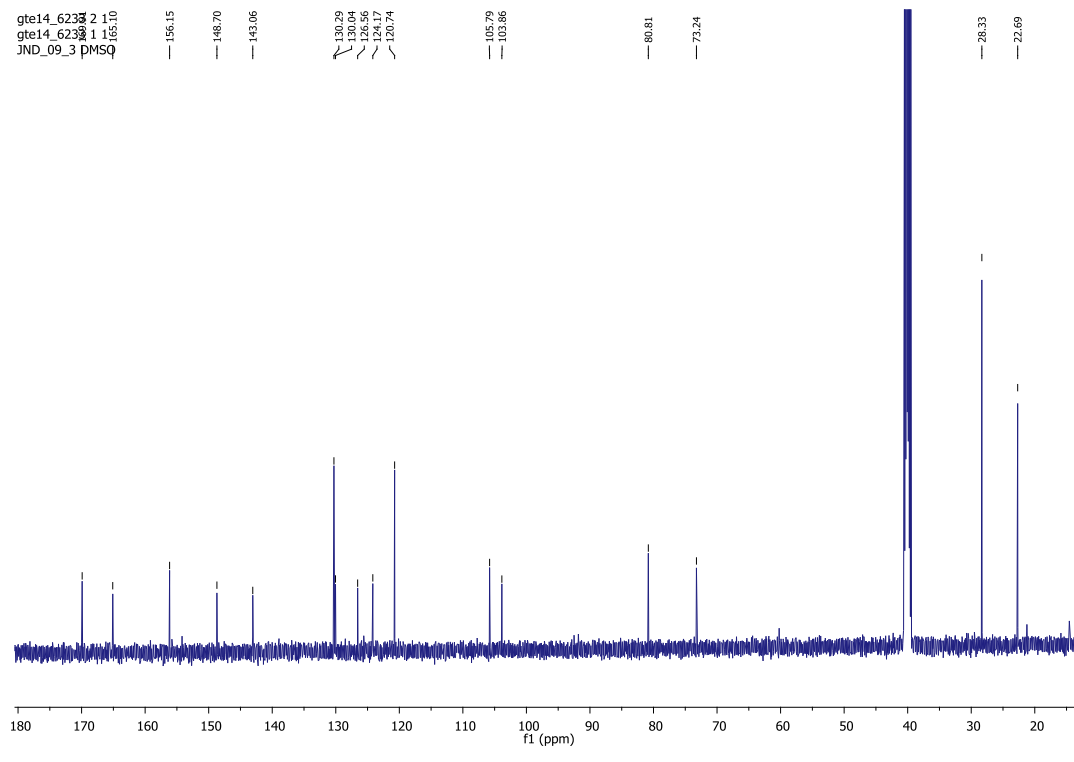


# Tert-butyl 4-(4-amino-2-hydroxy-3-isopropoxybenzamido)benzoate

gte14\_6233 1  
 gte14\_6233 1  
 JND\_09\_3 DMSO

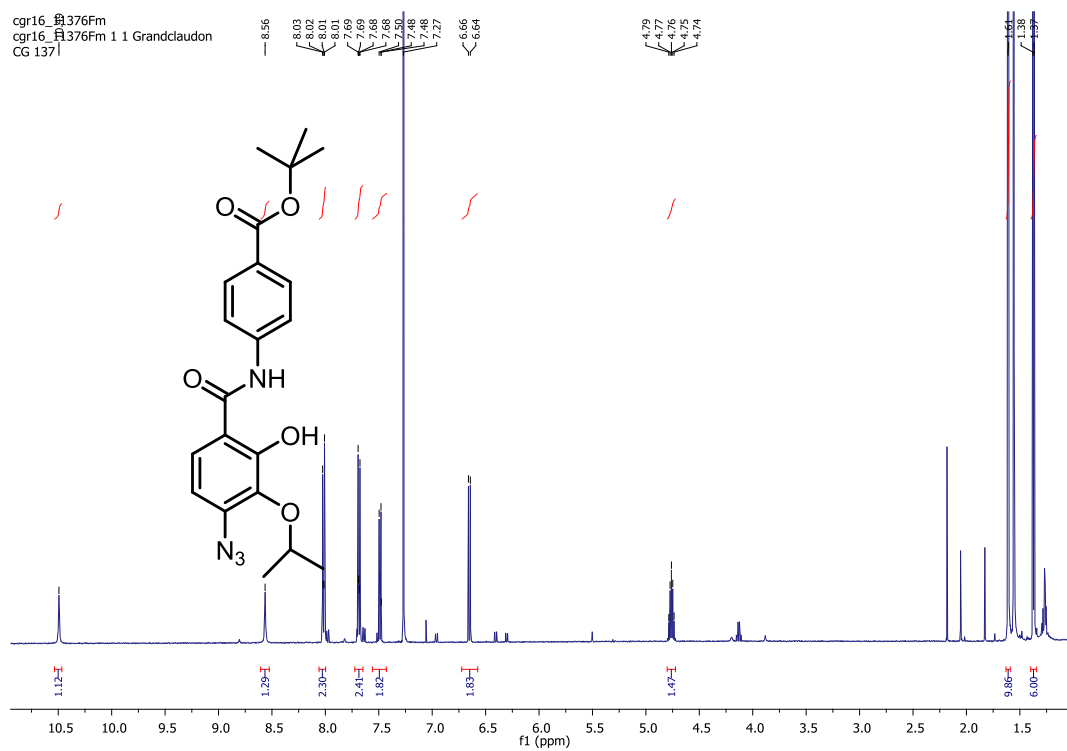


gte14\_6233 2 1  
 gte14\_6233 1 1  
 JND\_09\_3 DMSO

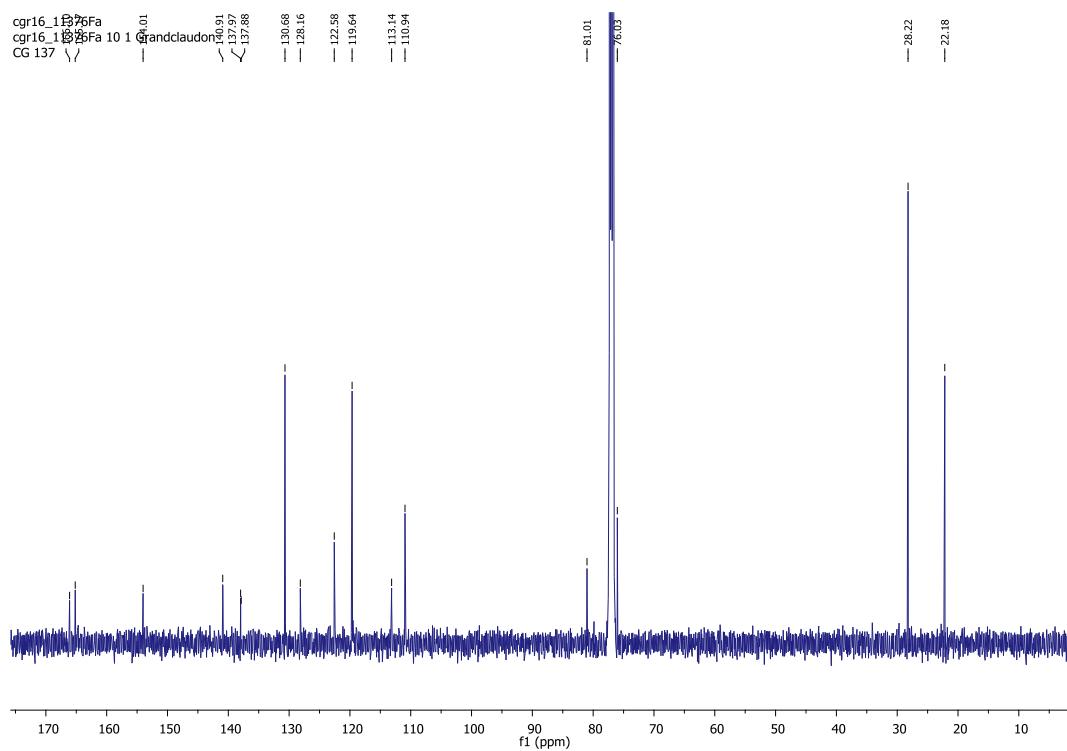


# Tert-butyl 4-(4-azido-2-hydroxy-3-isopropoxybenzamido)benzoate

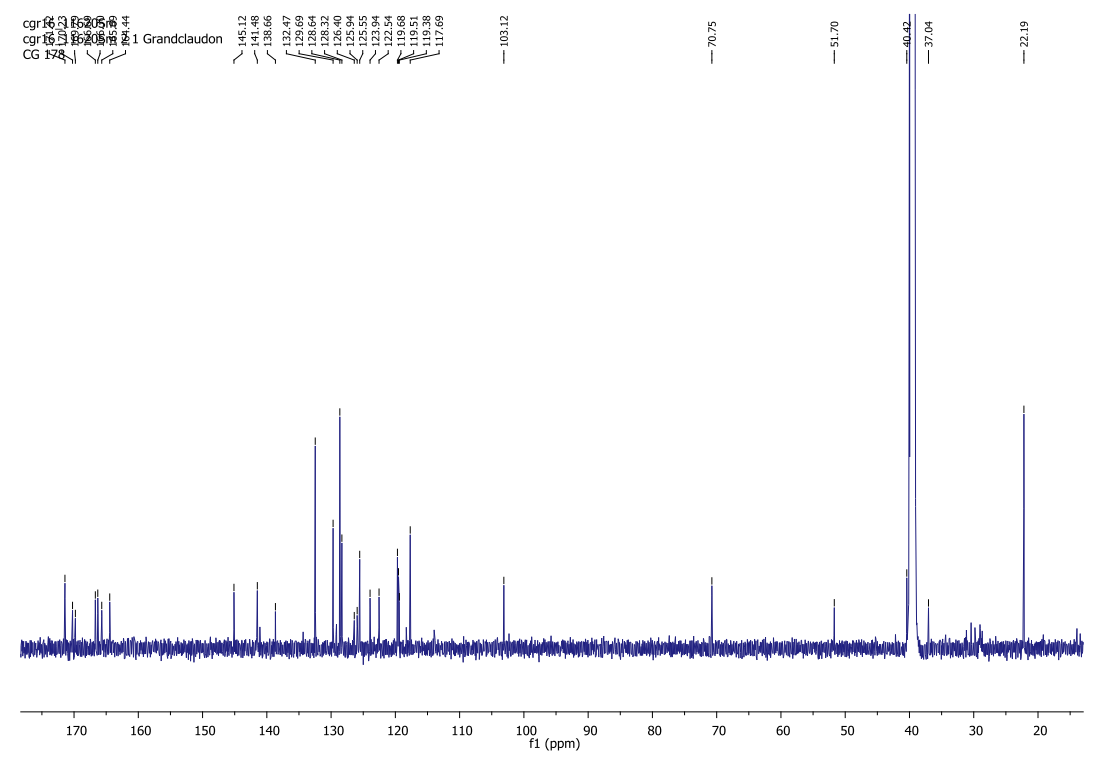
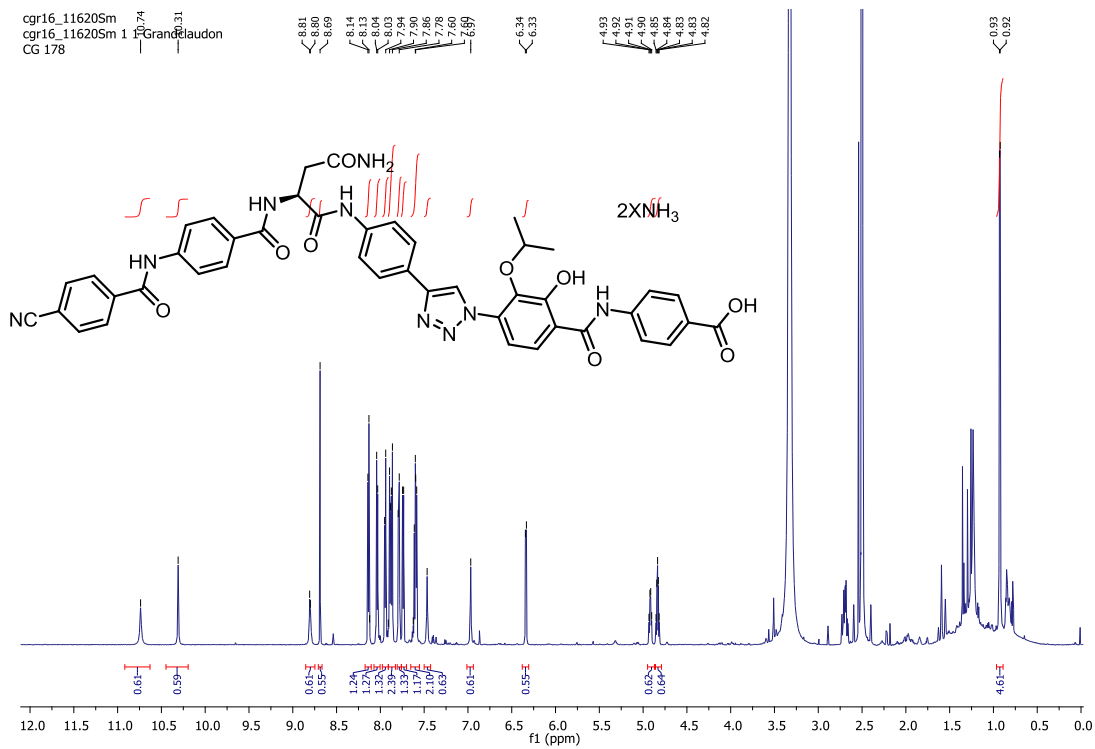
cgr16\_1376Fm  
 cgr16\_1376Fm 1 1 Grandclaudon  
 CG 137



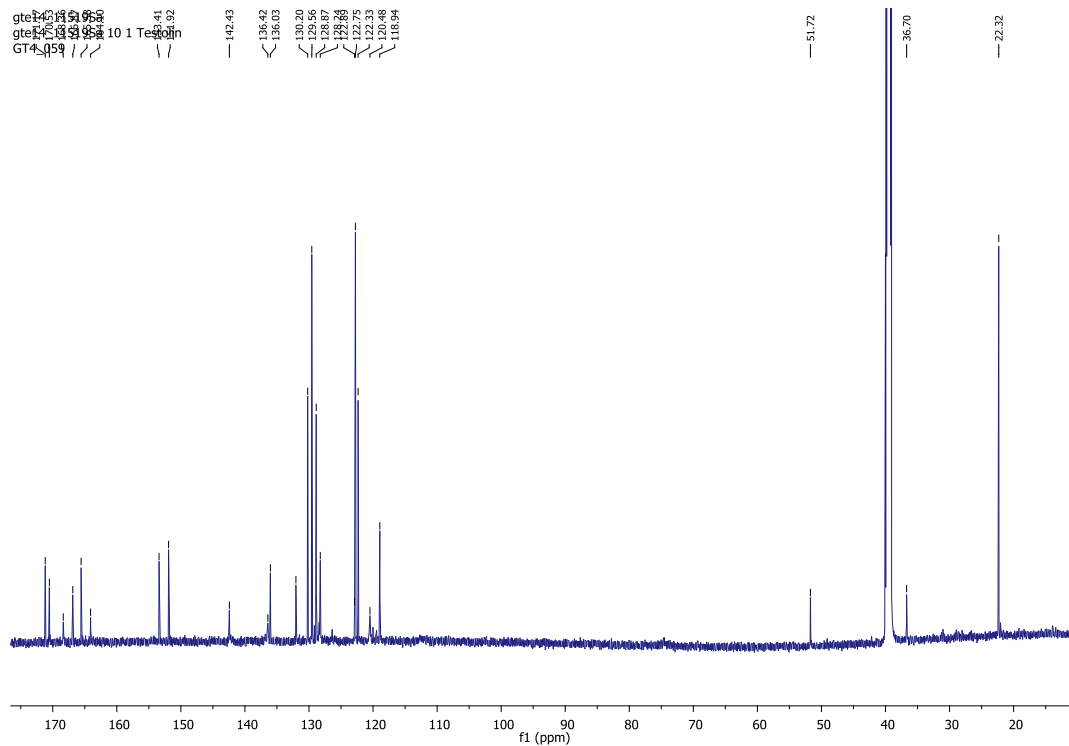
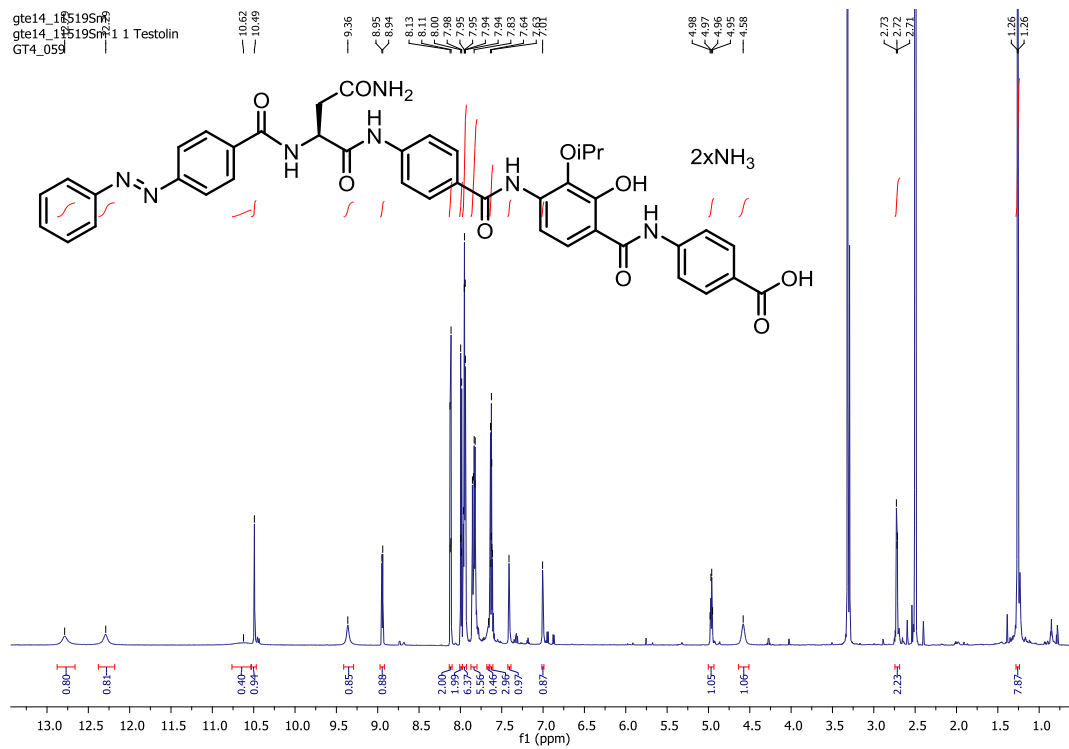
cgr16\_1376Fa  
 cgr16\_1376Fa 10 1 Grandclaudon  
 CG 137



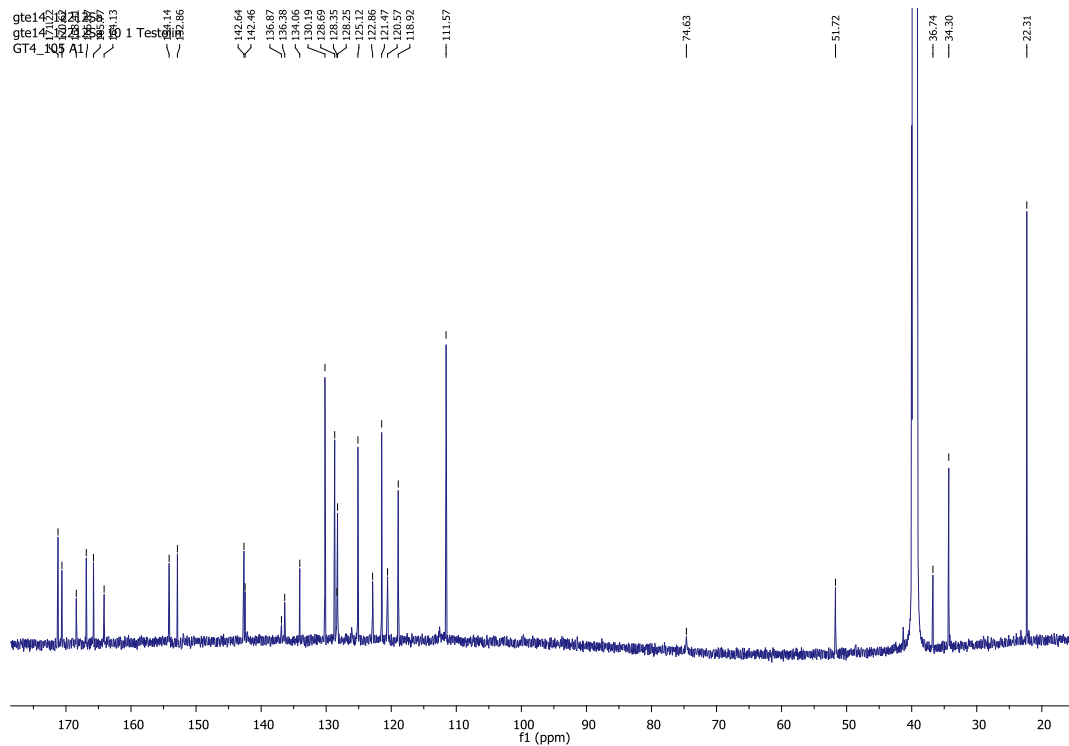
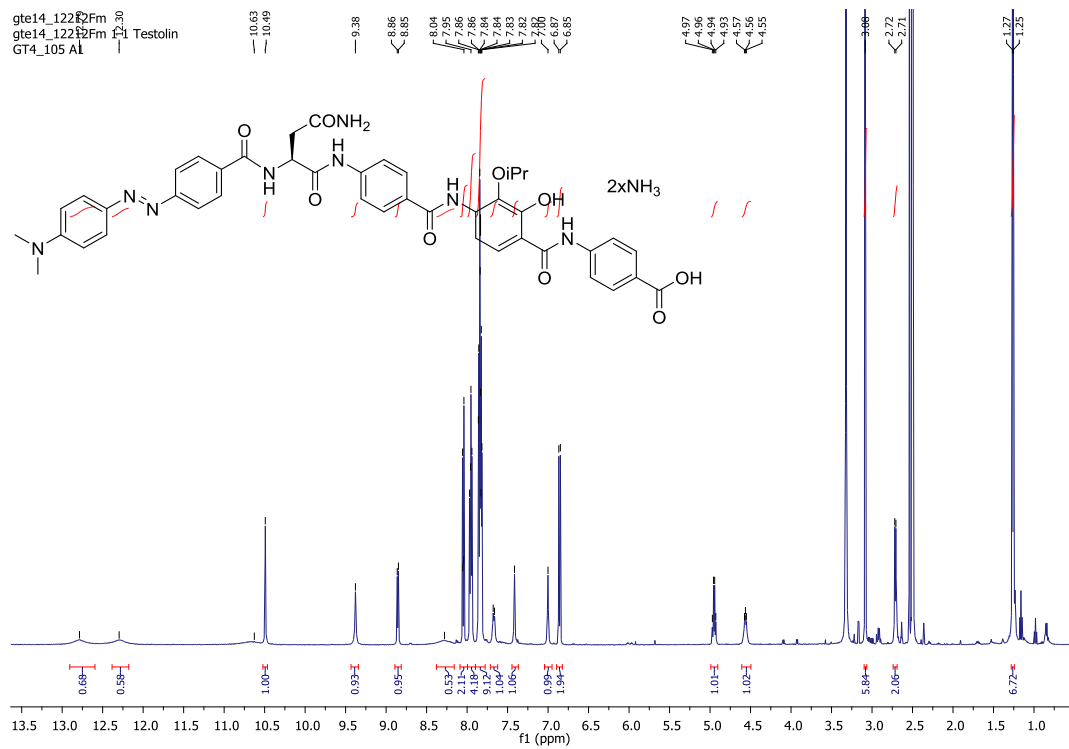
**4-(4-(4-(4-(4-Amino-2-(4-(4-cyanobenzamido)benzamido)-4-oxobutanamido)phenyl)-1H-1,2,3-triazol-1-yl)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



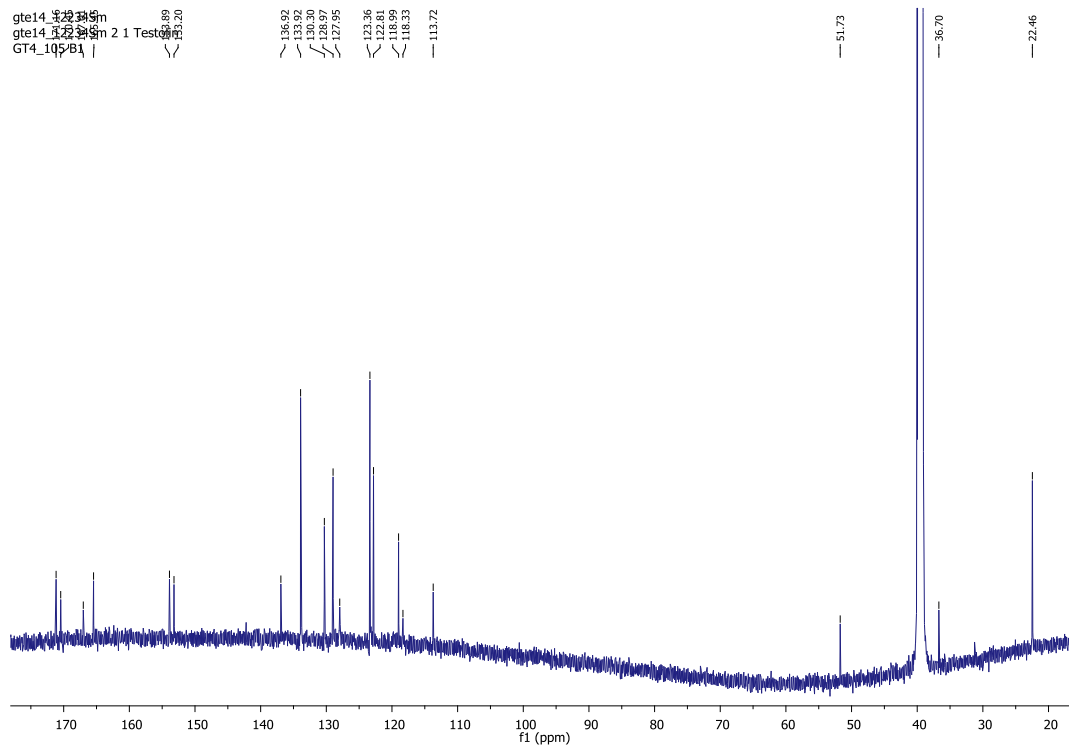
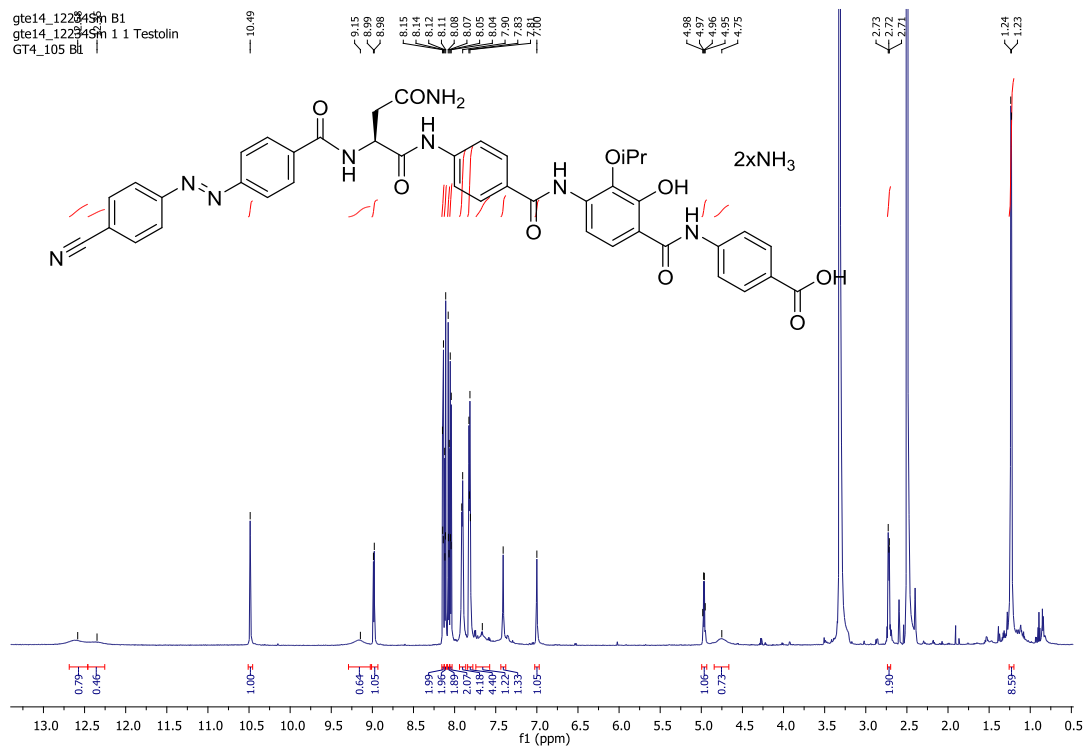
**(S,E)-4-(4-(4-(4-Amino-4-oxo-2-(4-(phenyldiazenyl)benzamido)butanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



**(S,E)-4-(4-(4-(4-Amino-2-(4-((4-(dimethylamino)phenyl)diazenyl)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**

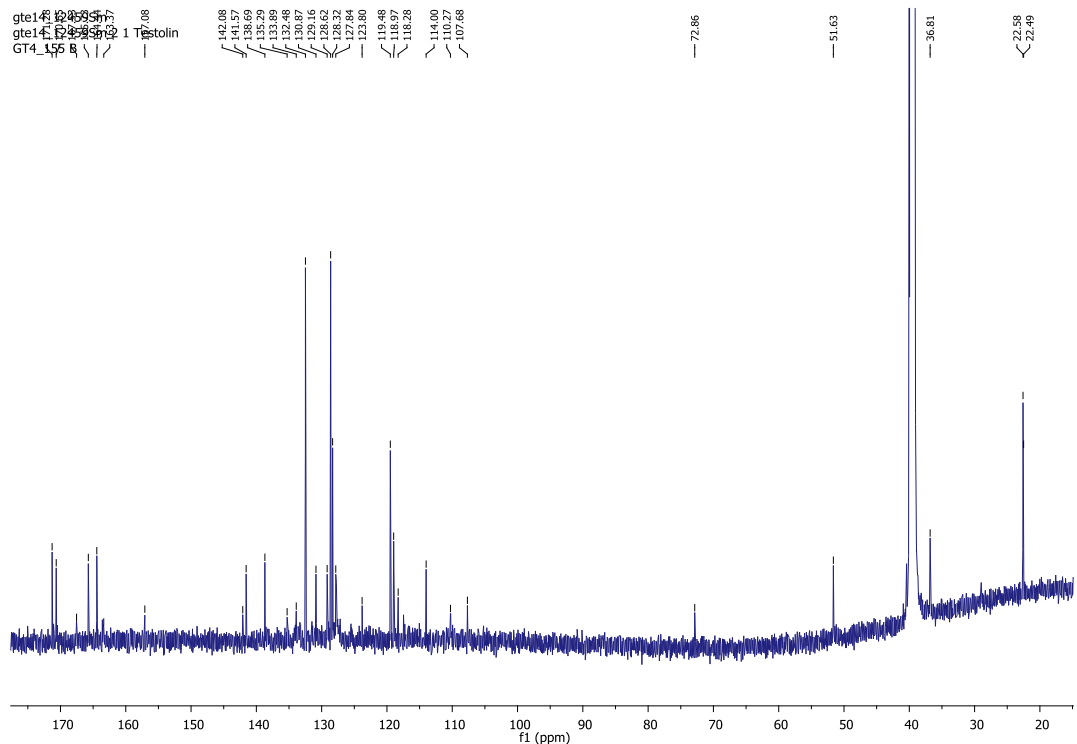
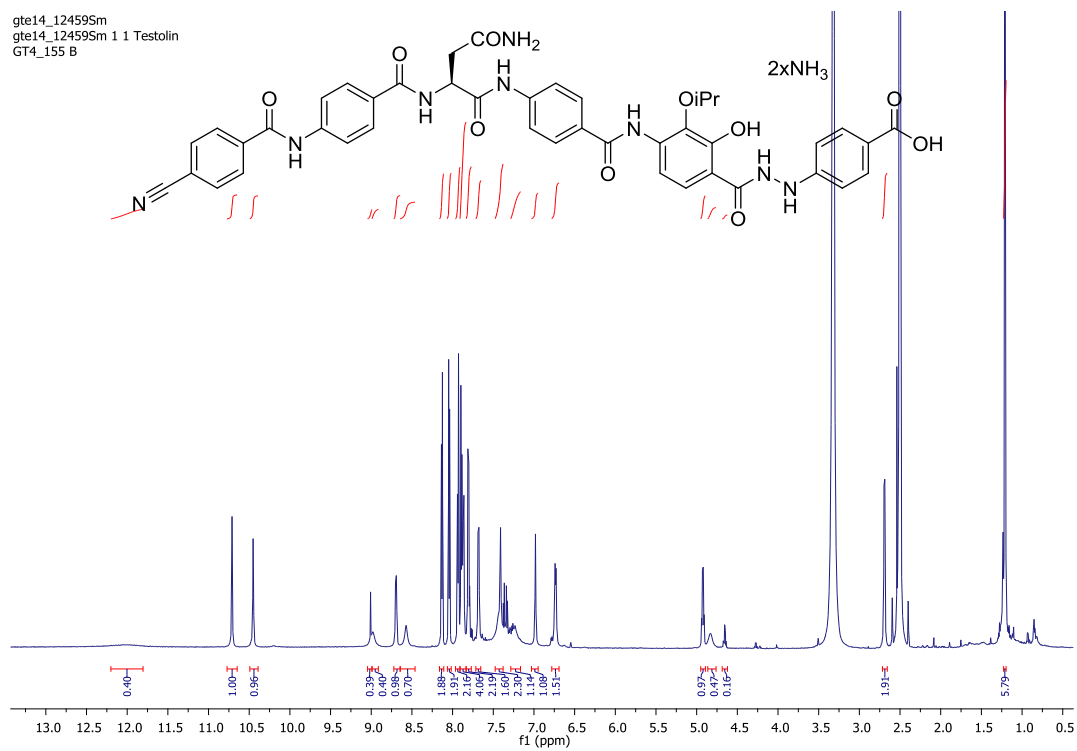


**(S,E)-4-(4-(4-(4-Amino-2-(4-((4-cyanophenyl)diazenyl)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzamido)benzoic acid**



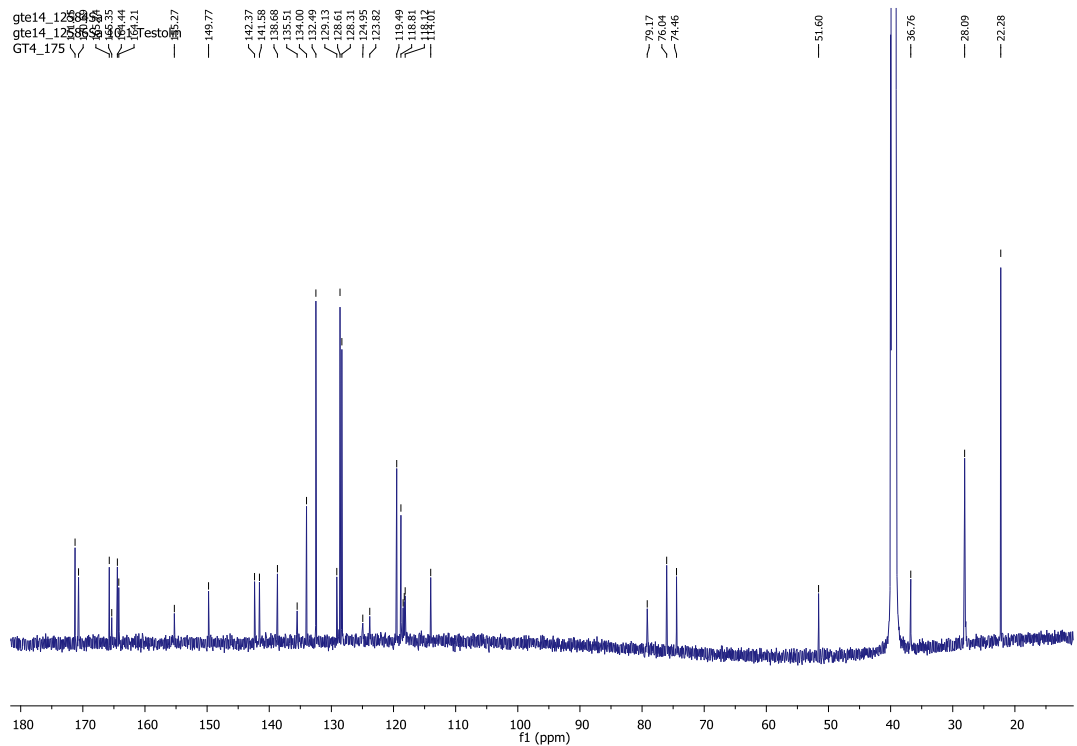
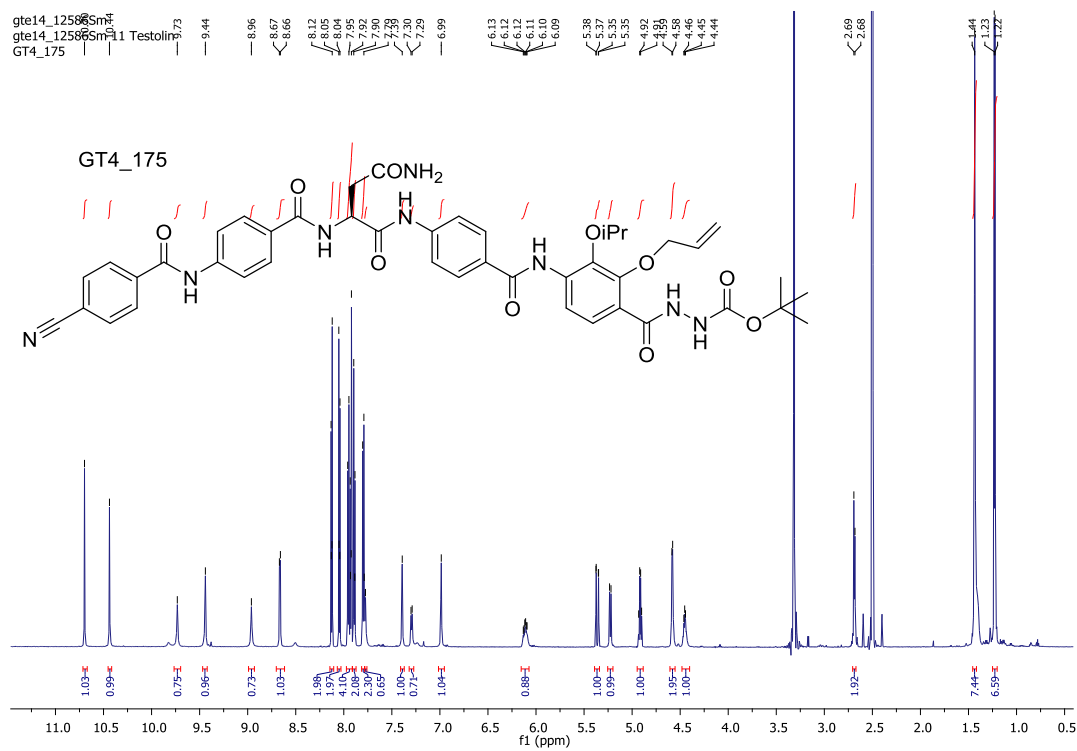
**(S)-4-(2-(4-(4-(4-Amino-2-(4-(4-cyanobenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzoyl)hydrazineyl)benzoic acid**

gte14\_12459Sm  
gte14\_12459Sm 1 1 Testolin  
GT4\_155 B





**Tert-butyl (S)-2-(2-(allyloxy)-4-(4-(4-amino-2-(4-(4-cyanobenzamido)benzamido)-4-oxobutanamido)benzamido)-3-isopropoxybenzoyl)hydrazine-1-carboxylate**



**(S,E)-4-((2-(4-(4-(4-Amino-2-(4-(4-cyanobenzamido)benzamido)-4-oxobutanamido)benzamido)-2-hydroxy-3-isopropoxybenzoyl)hydrazineylidene)methyl)benzoic acid**

gte14\_127225m  
 gte14\_127225m 1 1 Testolin  
 GT4\_181

