

Supporting Information

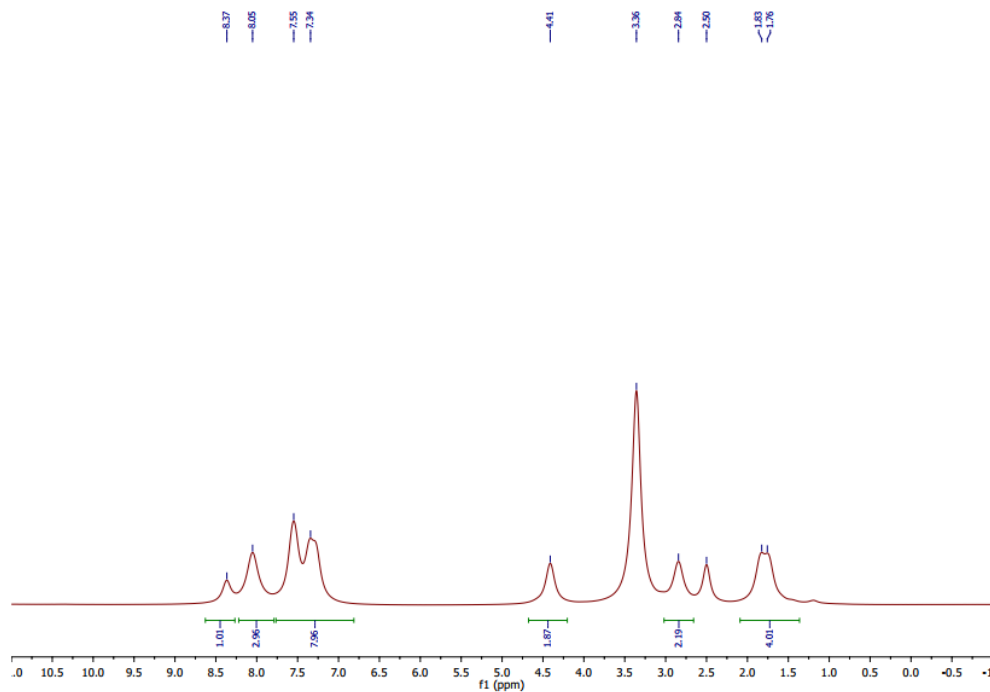
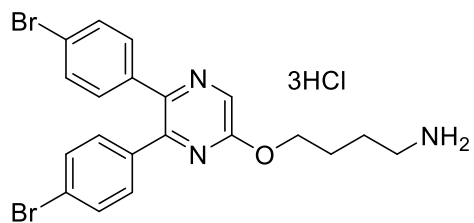
Structure-Activity Relationship and Antitumor Activity of Pyrazine-Containing Inhibitors of Histone Acetyltransferases P300/CBP

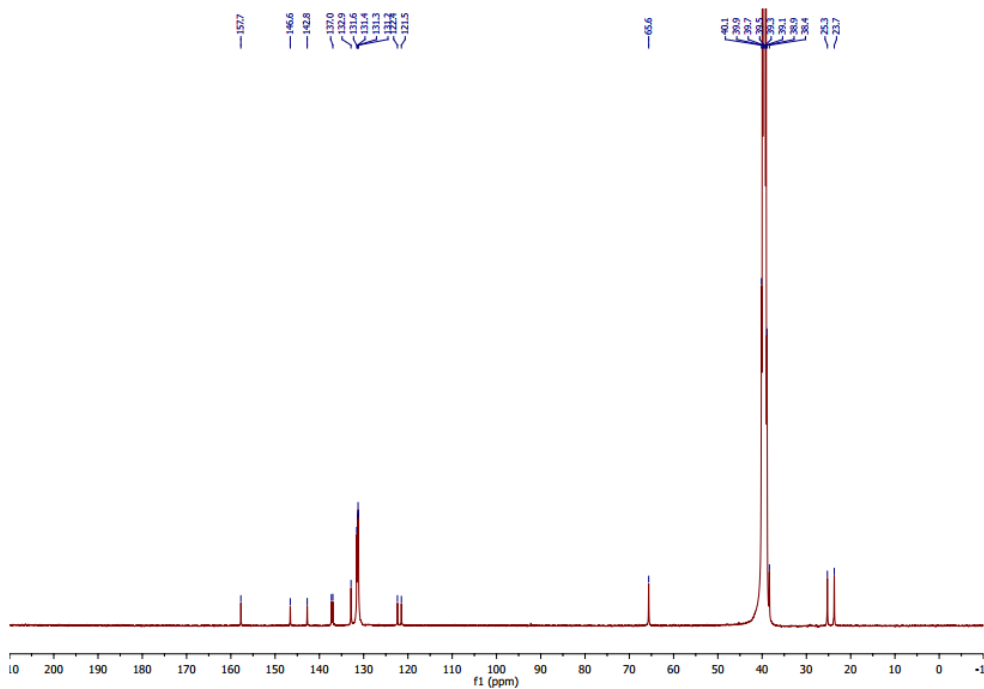
*Shenyou Nie,^{1,§,†} Fangrui Wu,^{1,§} Jingyu Wu,^{1,§} Xin Li,^{1,§} Chao Zhou,¹ Yuan Yao,¹ Yongcheng Song^{*1,2}*

¹Department of Pharmacology & Chemical Biology, ²Dan L. Duncan Cancer Center, Baylor College of Medicine, 1 Baylor Plaza, Houston, TX 77030, USA.

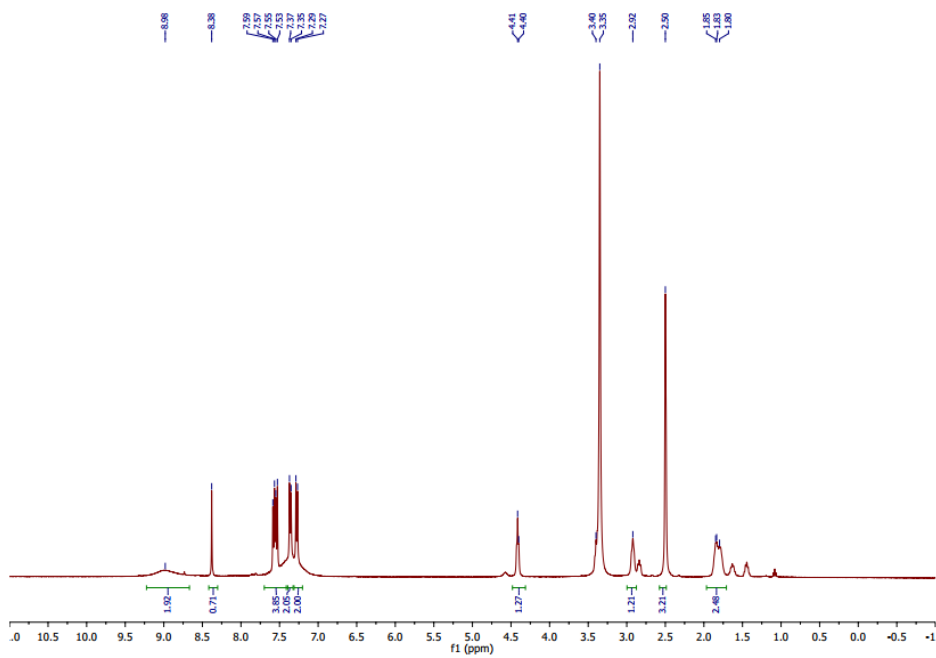
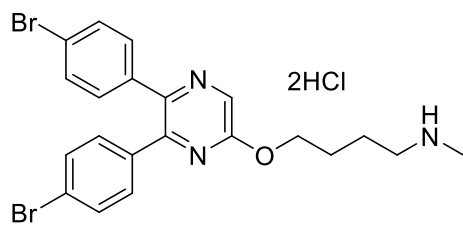
NMR spectra for new compounds:

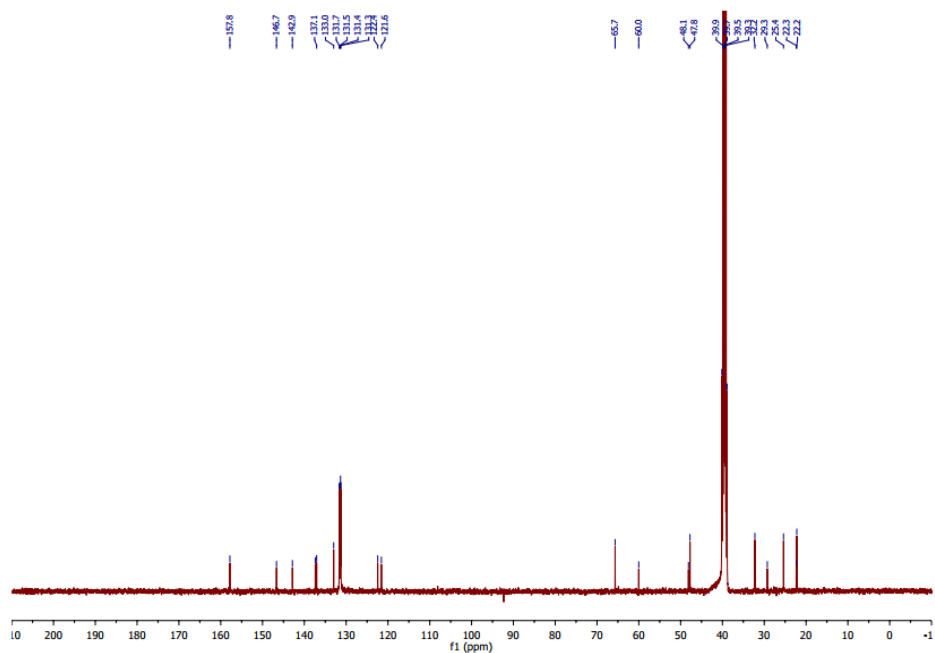
4-((5,6-bis(4-bromophenyl)pyrazin-2-yl)oxy)butan-1-amine hydrochloride (4)



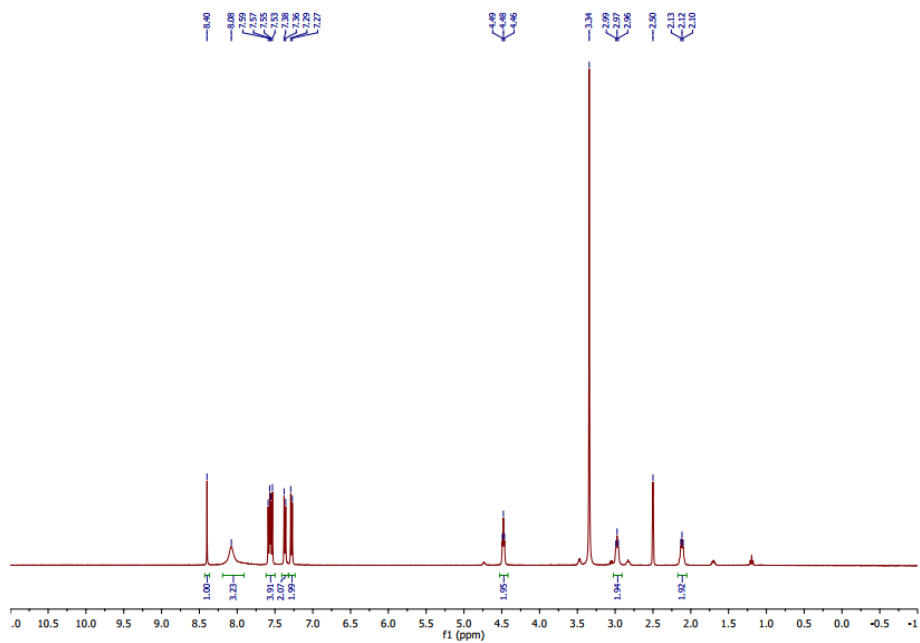
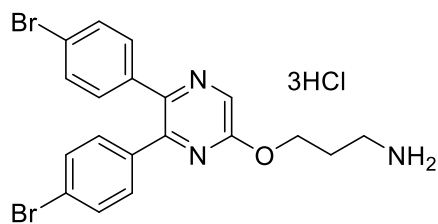


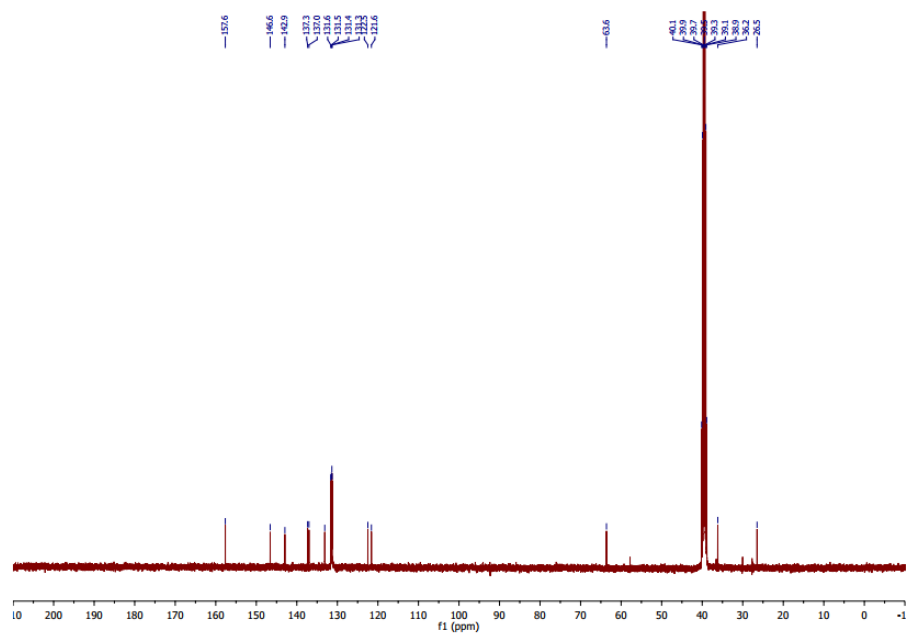
4-((5,6-bis(4-bromophenyl)pyrazin-2-yl)oxy)-N-methylbutan-1-amine hydrochloride (5)



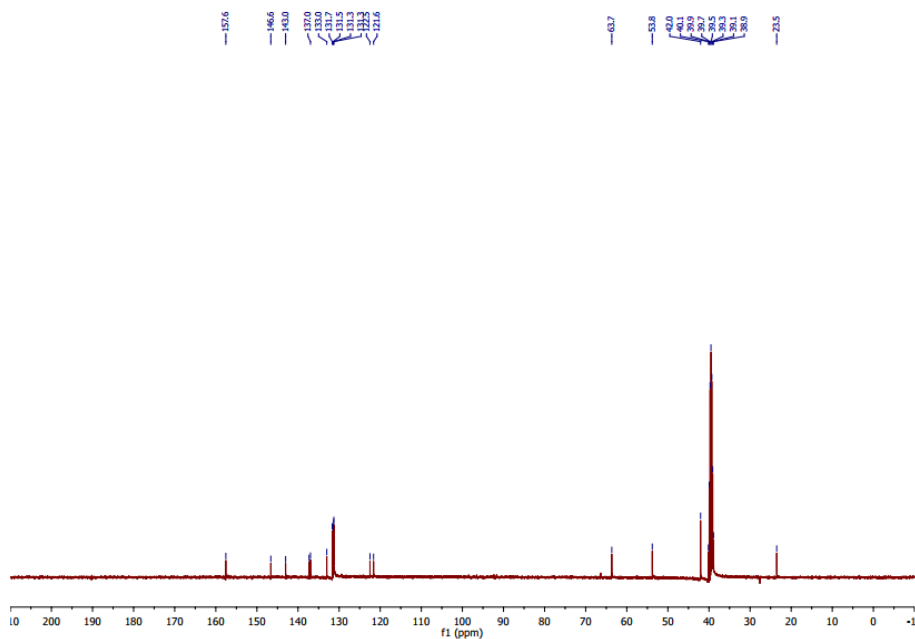
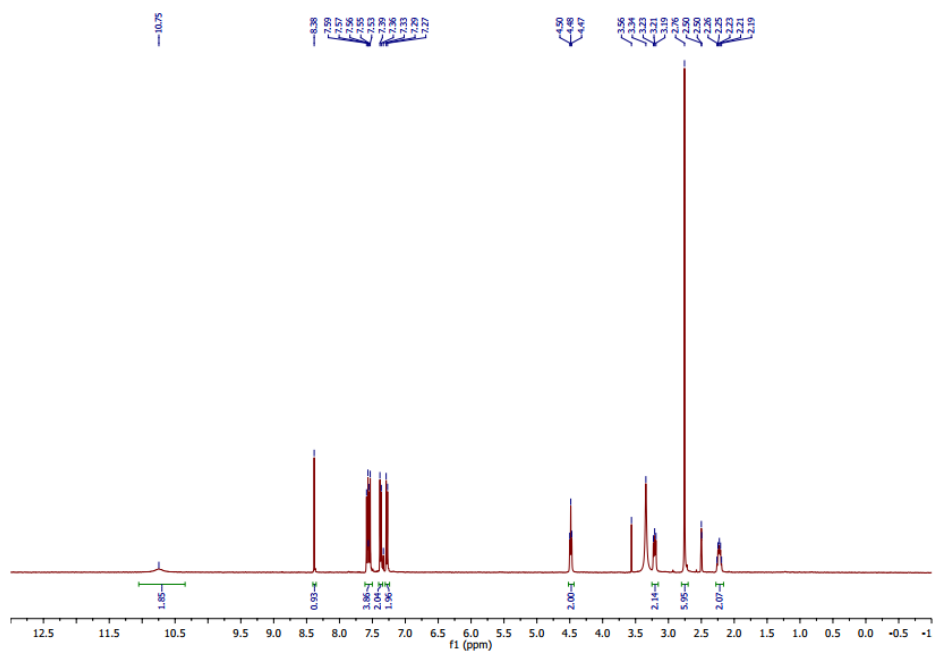
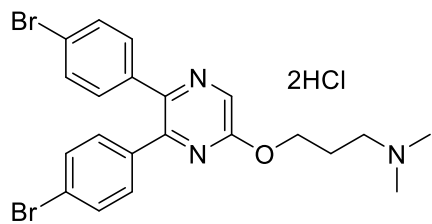


3-((5,6-bis(4-bromophenyl)pyrazin-2-yl)oxy)propan-1-amine hydrochloride (6)

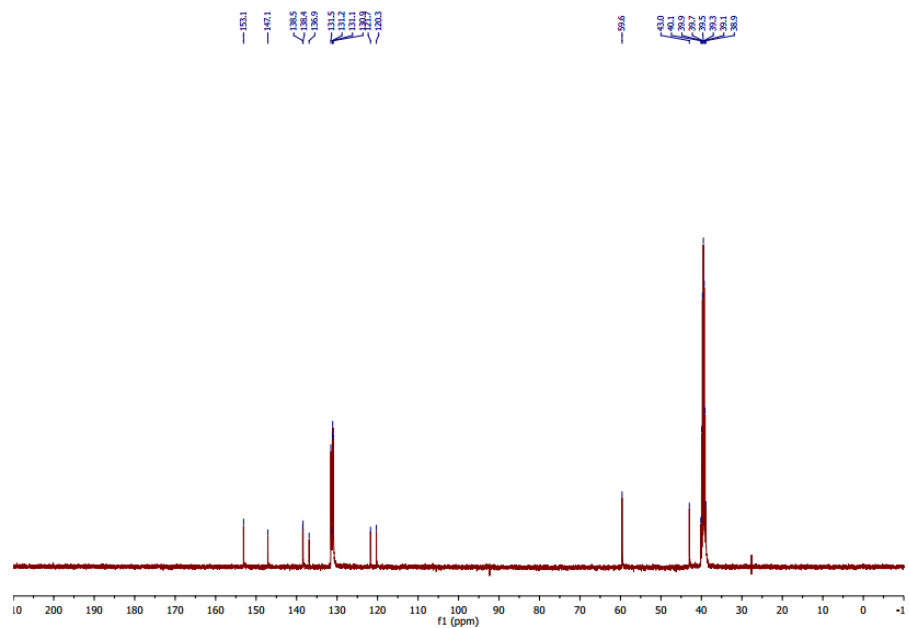
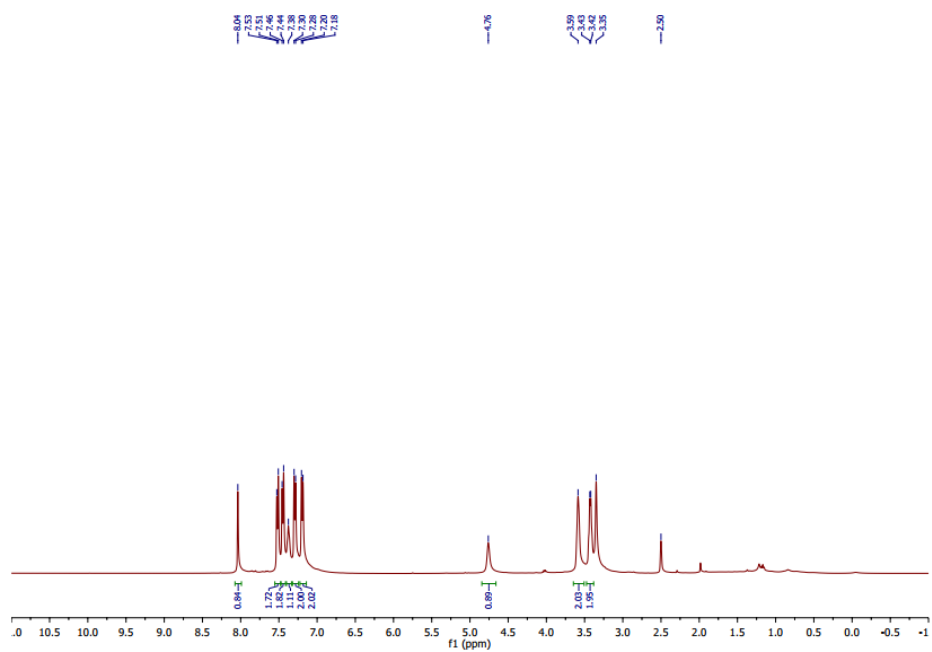
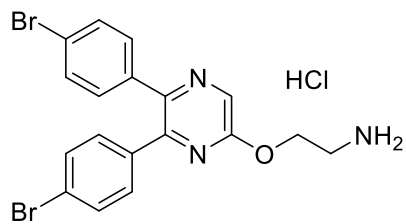




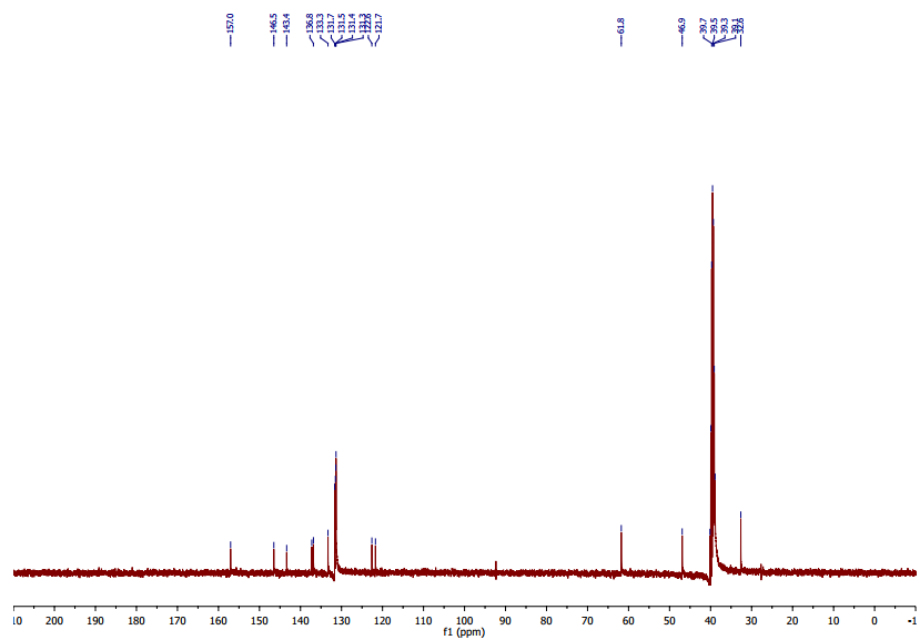
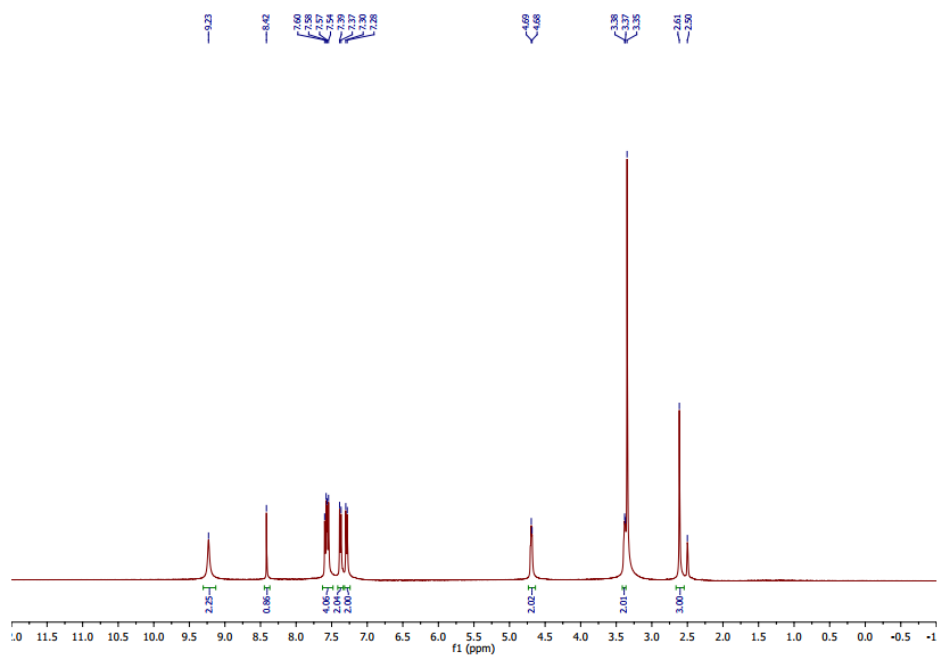
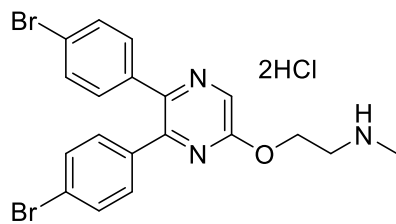
3-((5,6-bis(4-bromophenyl)pyrazin-2-yl)oxy)-N,N-dimethylpropan-1-amine hydrochloride (7)



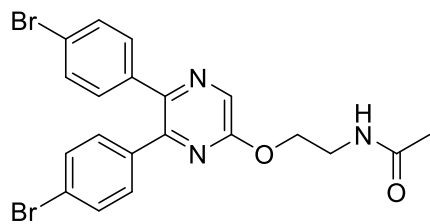
2-((5,6-bis(4-bromophenyl)pyrazin-2-yl)oxy)ethan-1-amine hydrochloride (8)



2-((5,6-bis(4-bromophenyl)pyrazin-2-yl)oxy)-N-methylethan-1-amine hydrochloride (9)



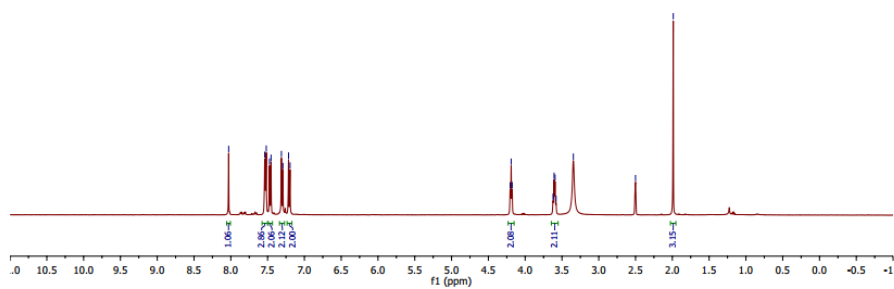
N-(2-((5,6-bis(4-bromophenyl)pyrazin-2-yl)oxy)ethyl)acetamide hydrochloride (10)



8.03
7.98
7.94
7.87
7.81
7.79
7.72

4.20
4.18
3.62
3.61
3.59
3.35

2.0
1.99



170.4

152.8

147.1

138.3

137.4

131.5

131.1

128.4

62.5

45.1

39.9

39.7

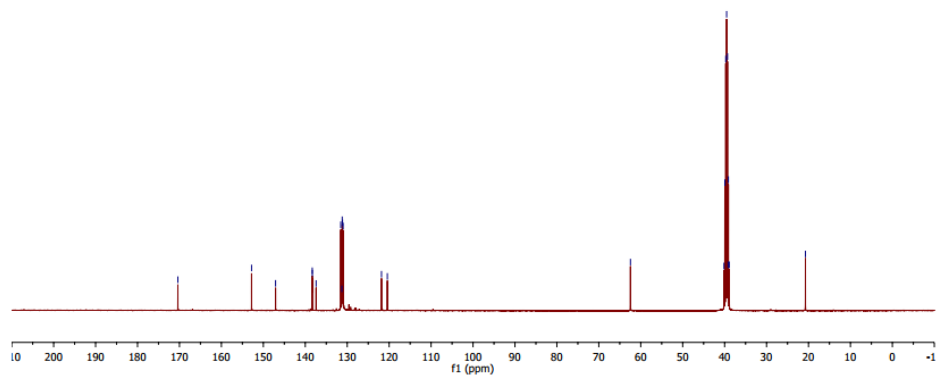
39.5

39.2

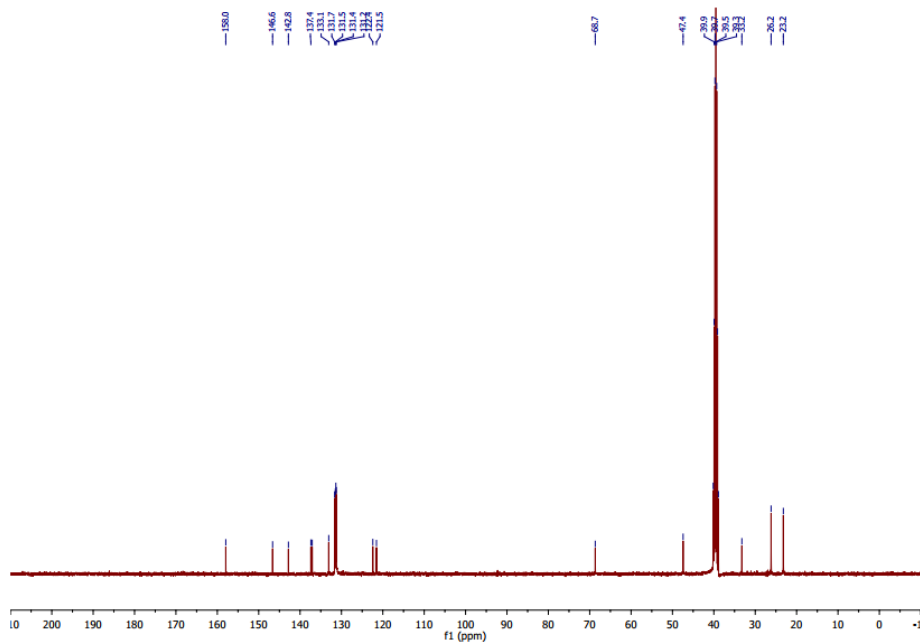
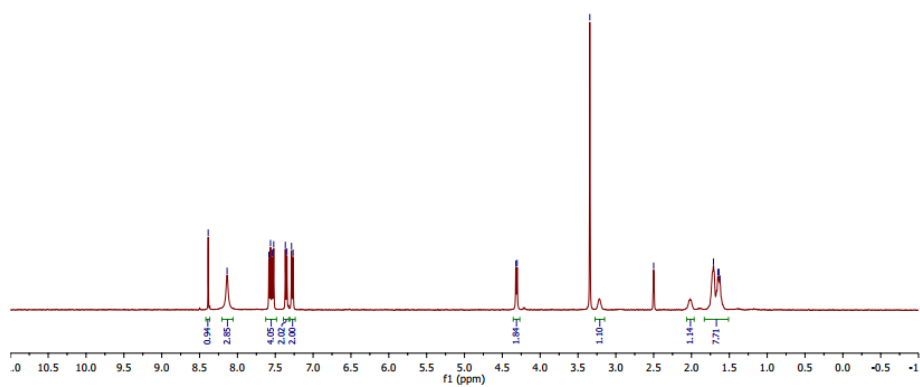
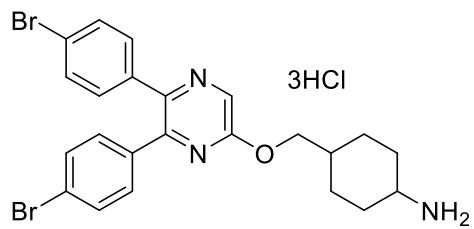
39.1

38.9

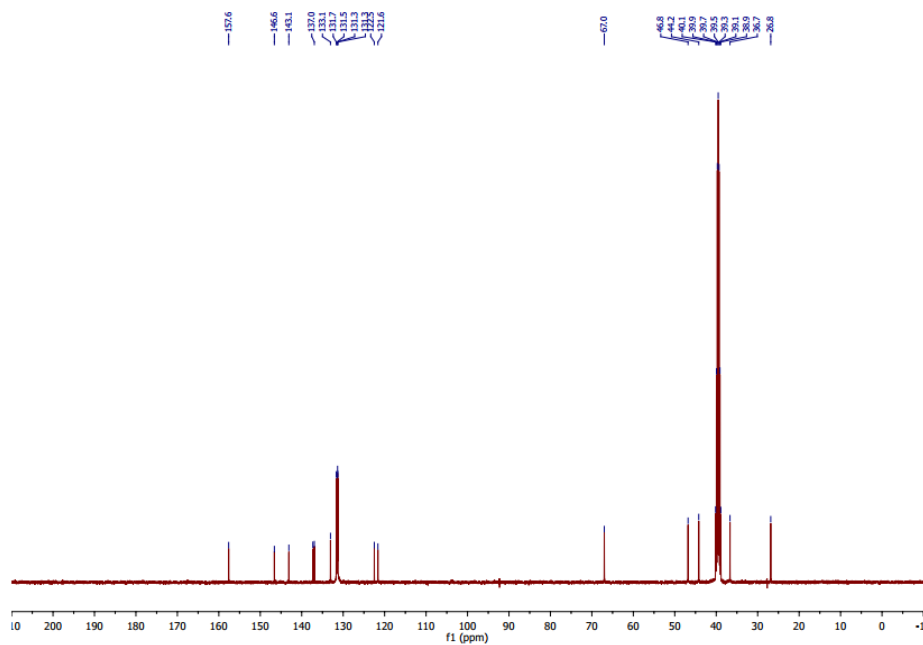
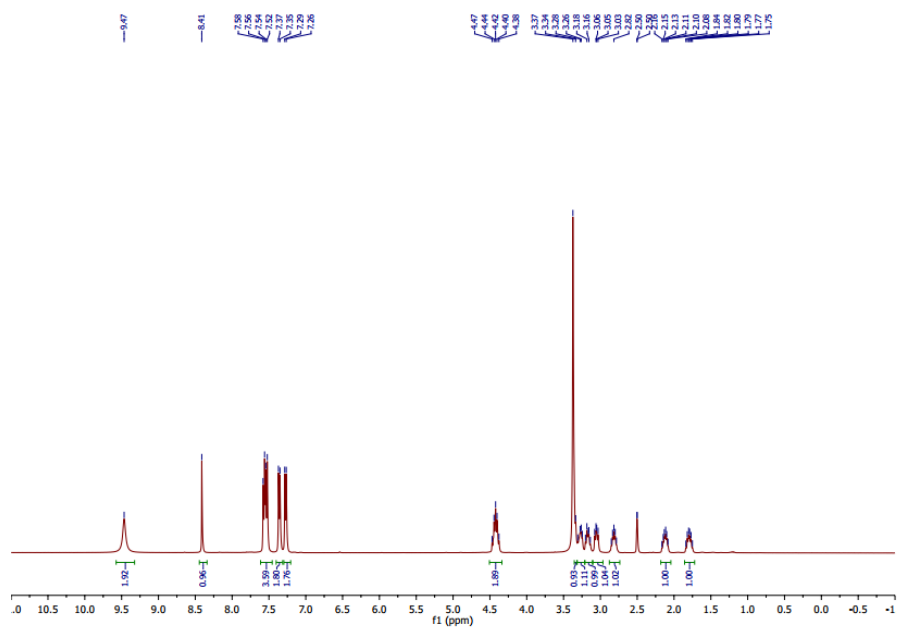
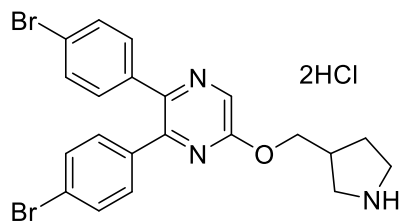
20.7



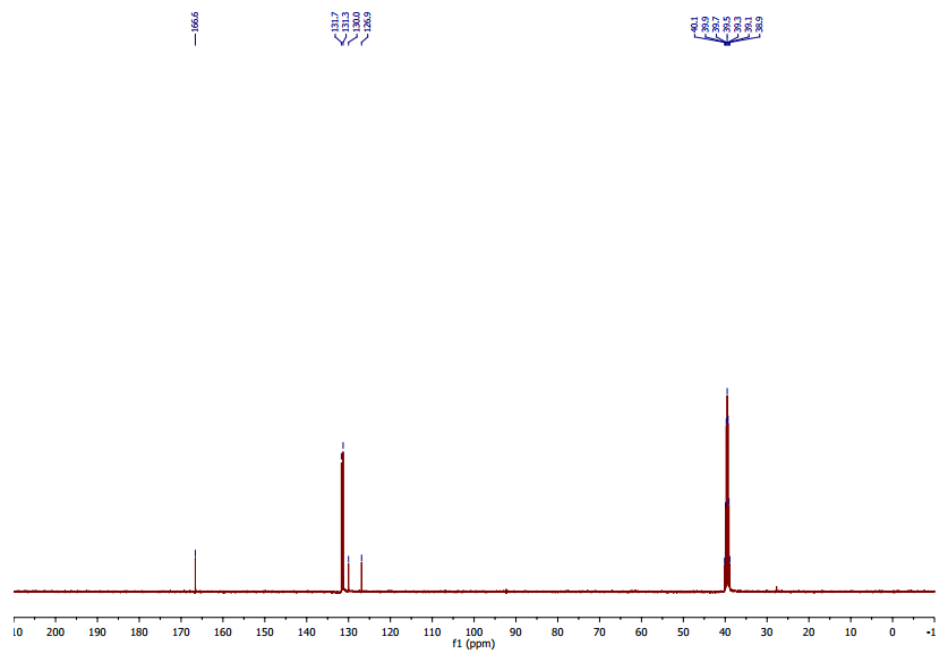
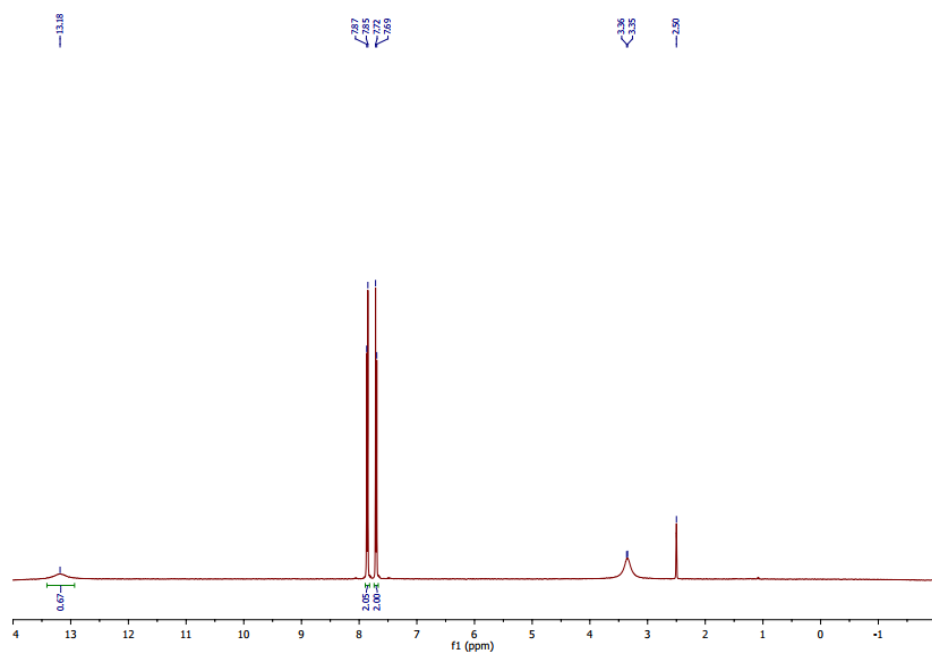
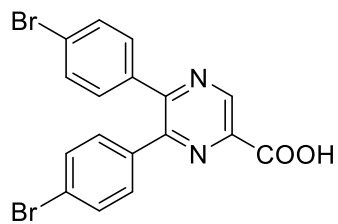
4-(((5,6-bis(4-bromophenyl)pyrazin-2-yl)oxy)methyl)cyclohexan-1-amine hydrochloride (11)



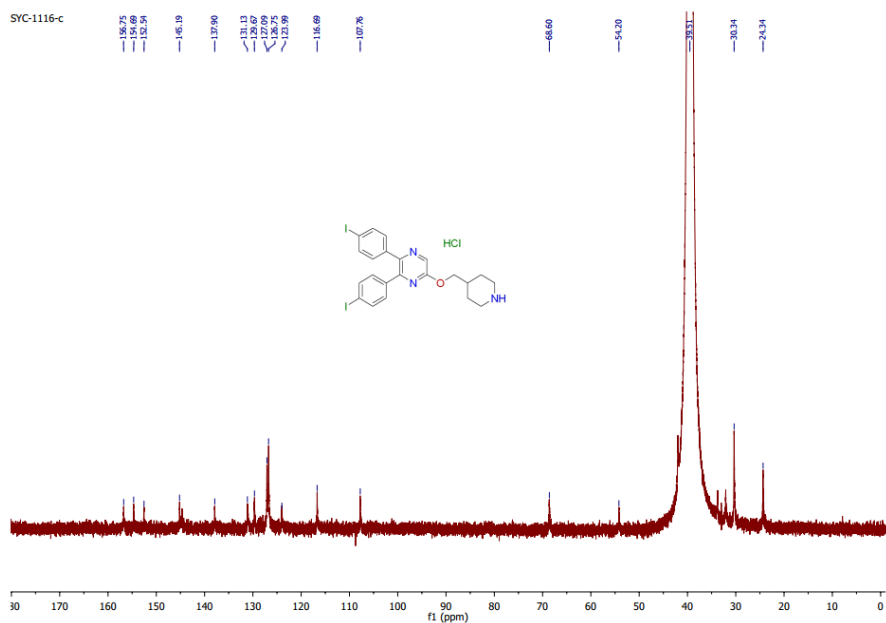
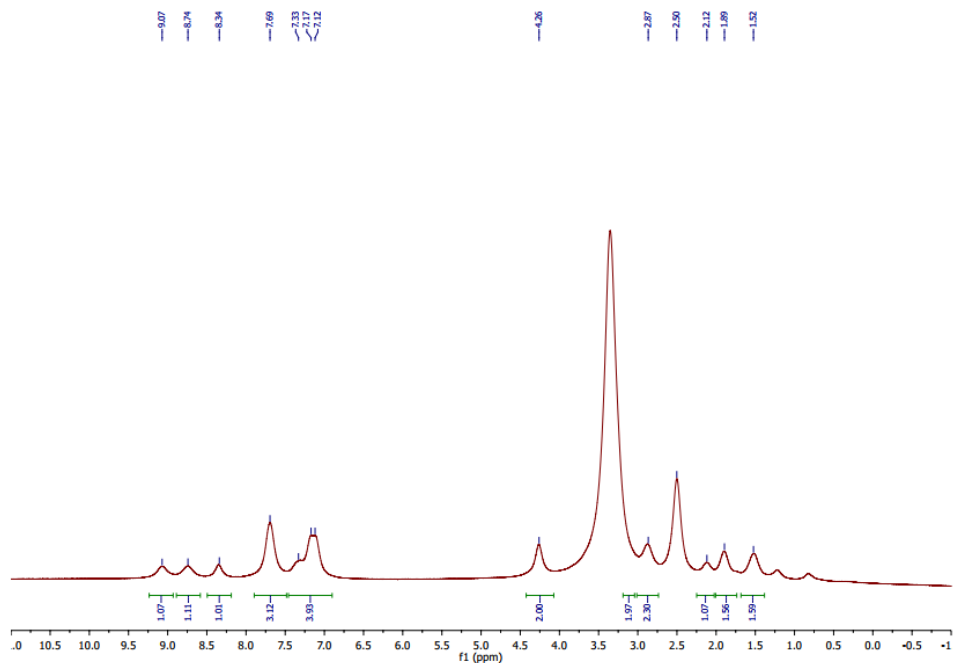
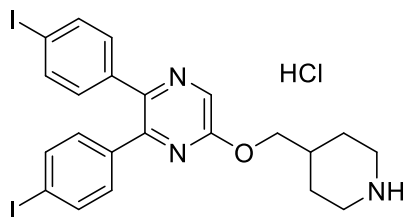
2,3-bis(4-bromophenyl)-5-(pyrrolidin-3-ylmethoxy)pyrazine hydrochloride (12)



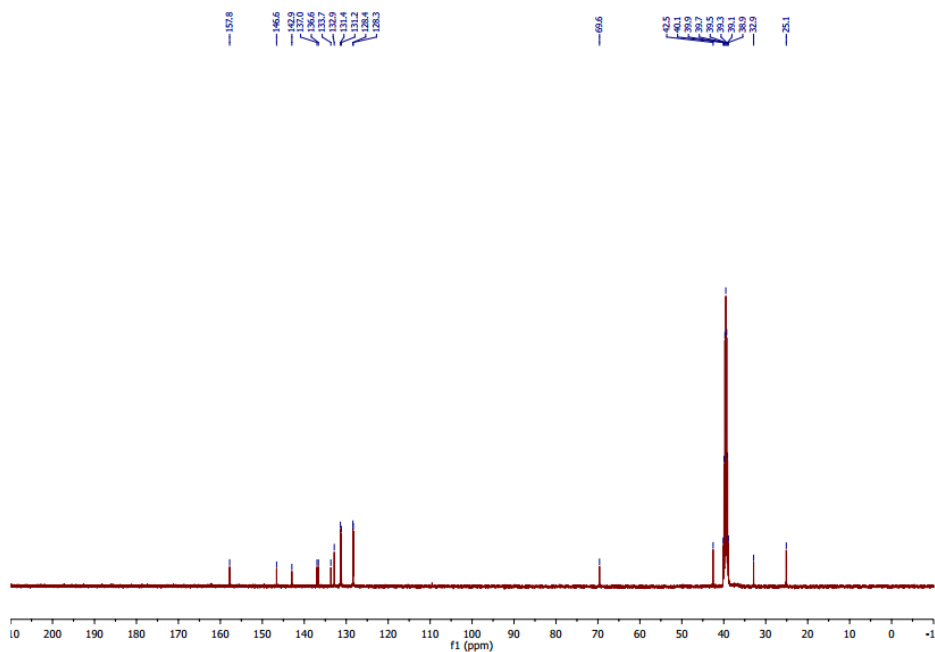
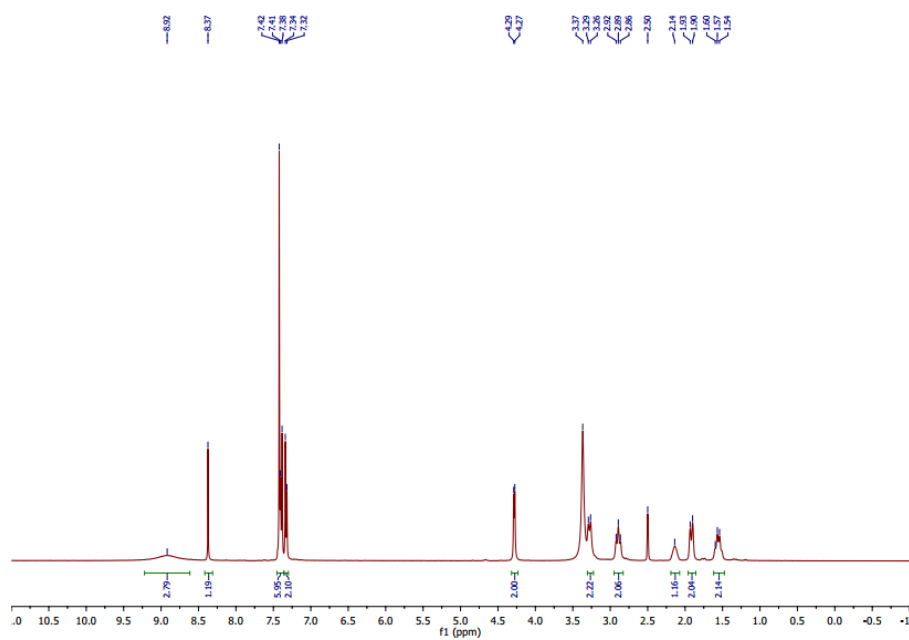
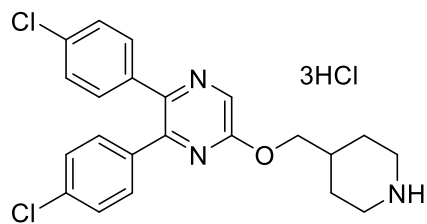
5,6-bis(4-bromophenyl)pyrazine-2-carboxylic acid (13)



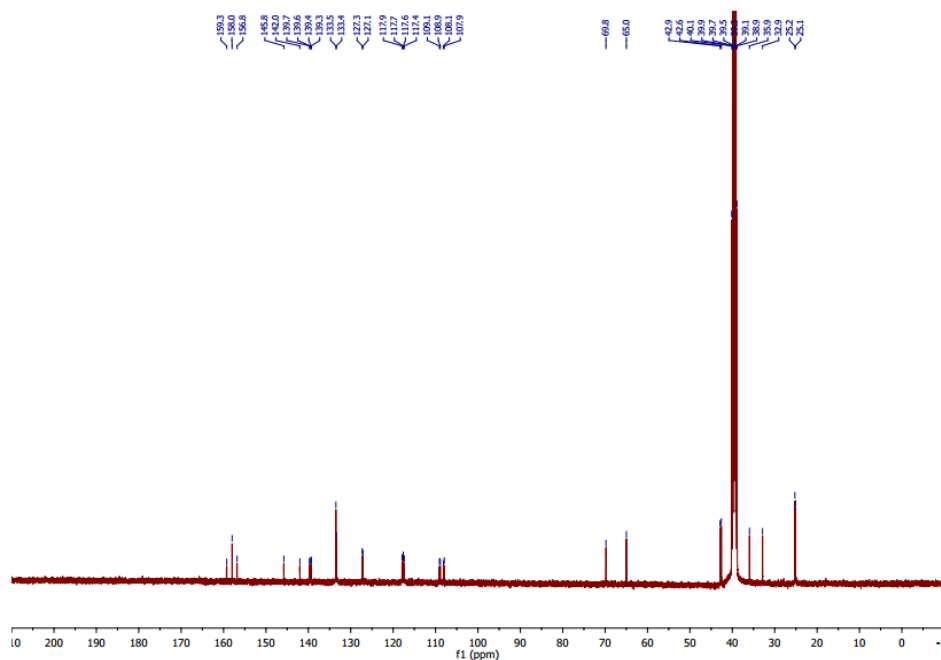
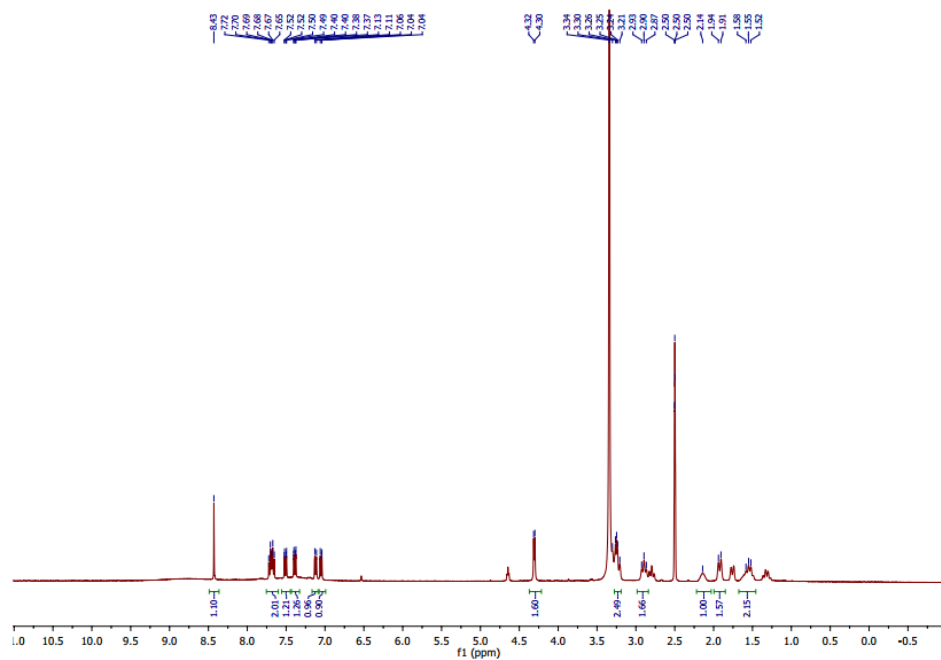
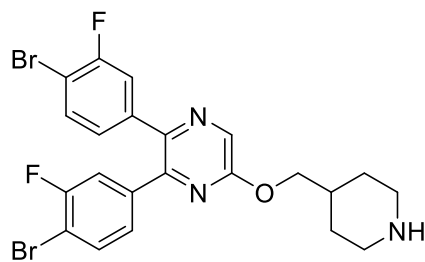
2,3-bis(4-Iodophenyl)-5-(piperidin-4-ylmethoxy)pyrazine hydrochloride (14)



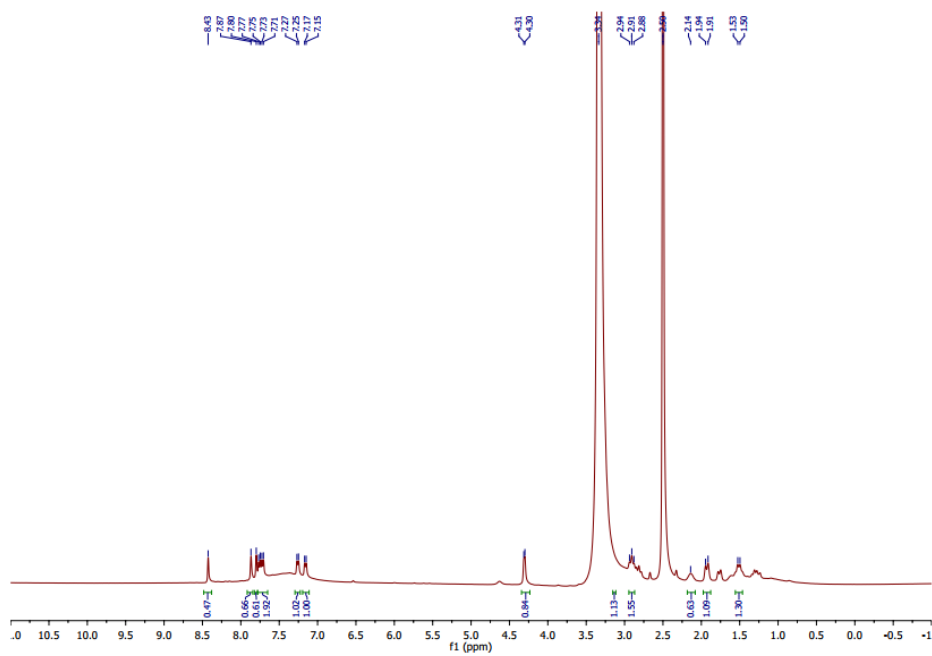
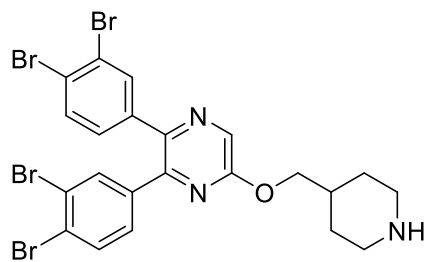
2,3-bis(4-chlorophenyl)-5-(piperidin-4-ylmethoxy)pyrazine hydrochloride (15)



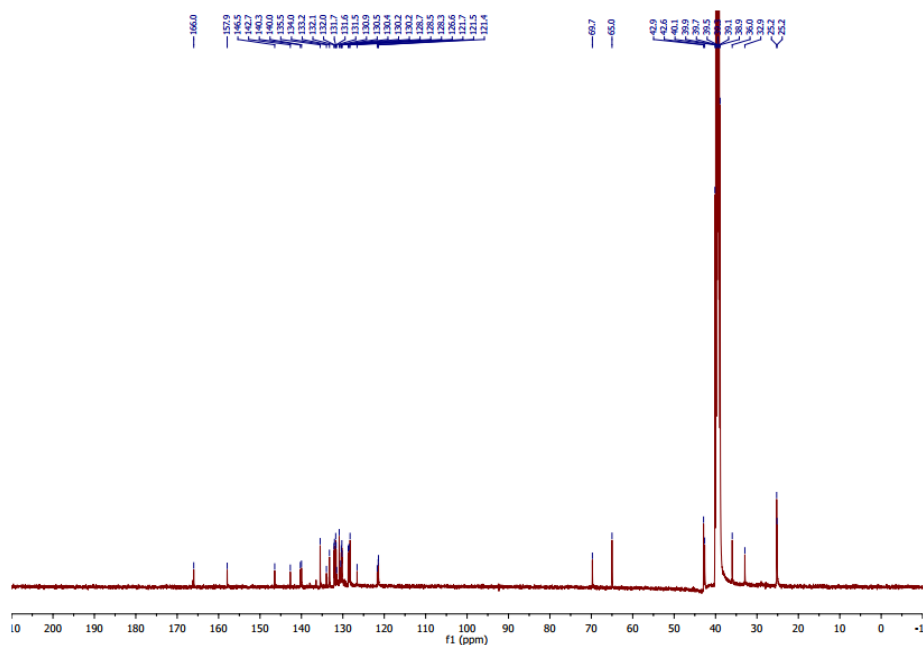
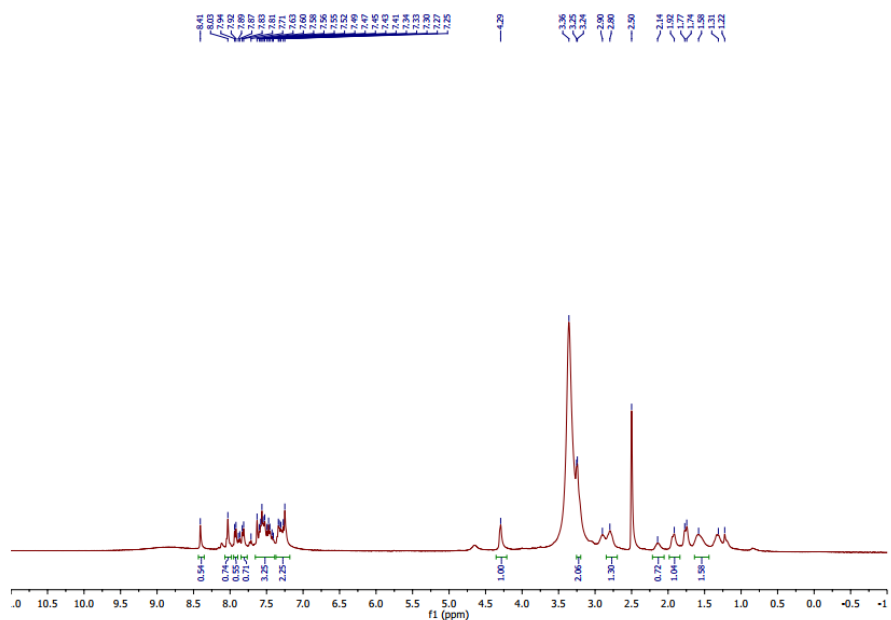
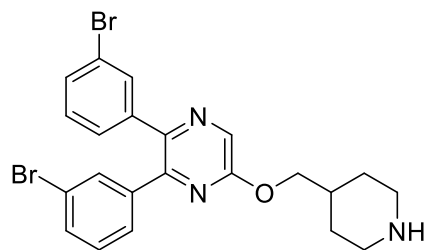
2,3-bis(4-bromo-3-fluorophenyl)-5-(piperidin-4-ylmethoxy)pyrazine hydrochloride (16)



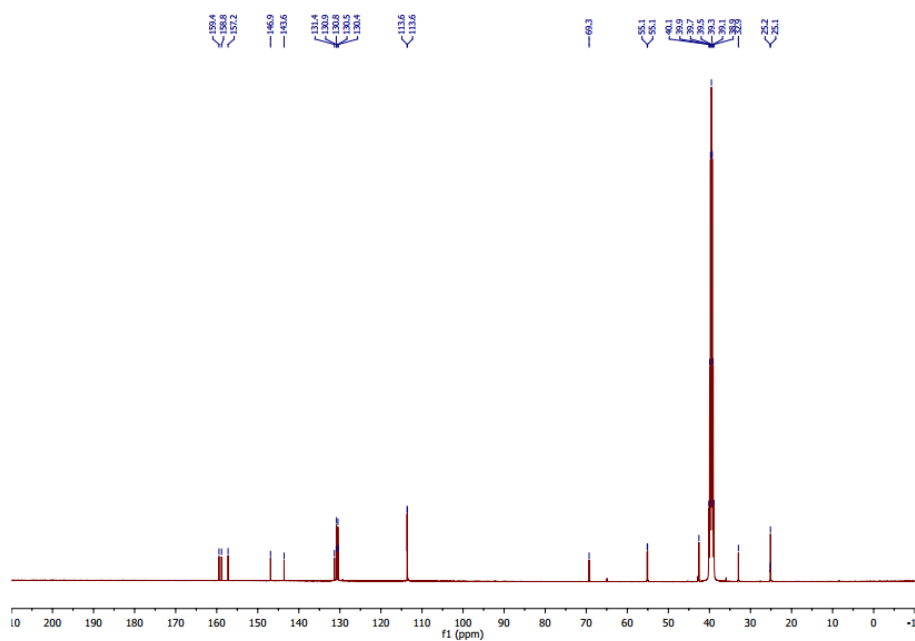
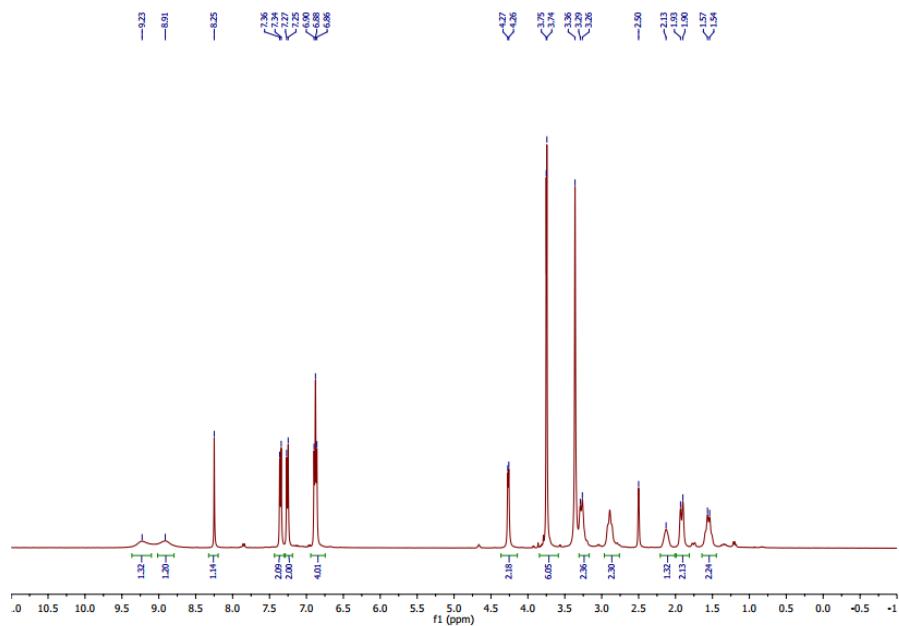
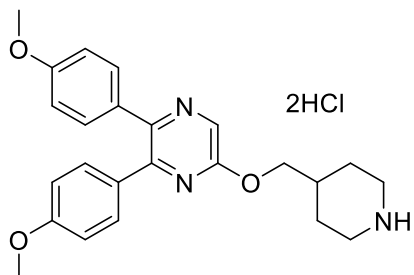
2,3-bis(3,4-dibromophenyl)-5-(piperidin-4-ylmethoxy)pyrazine hydrochloride (17)



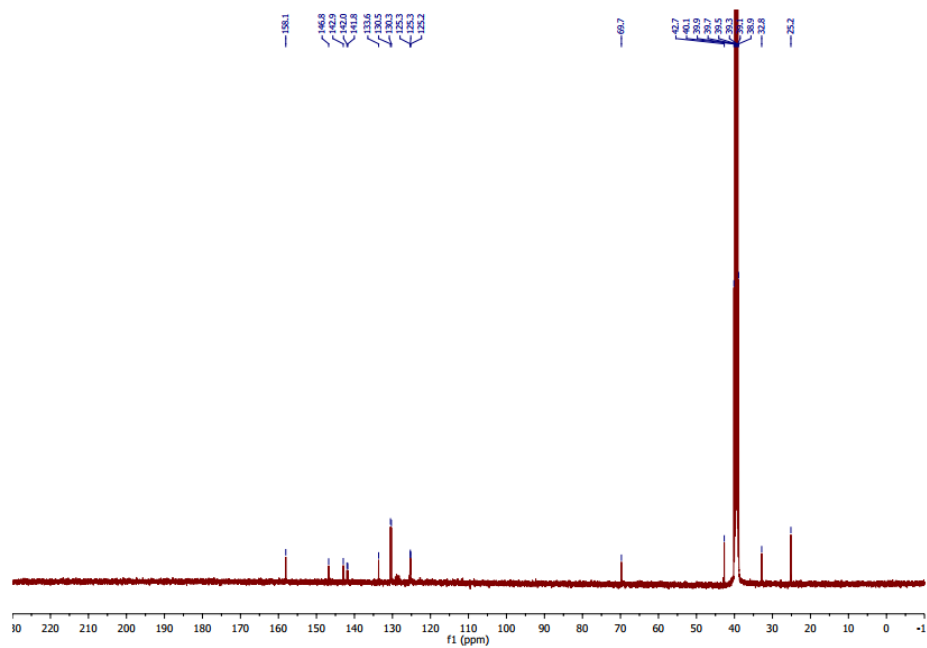
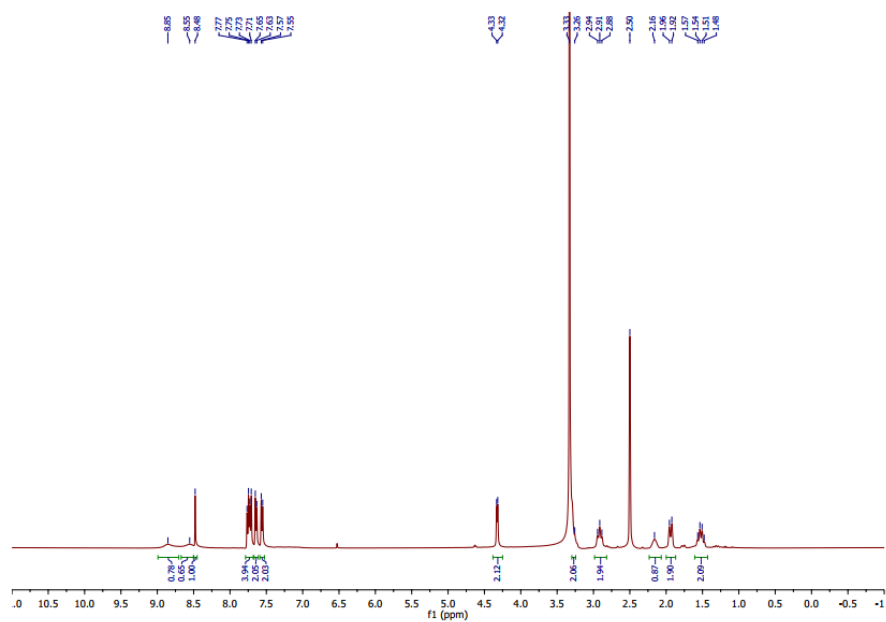
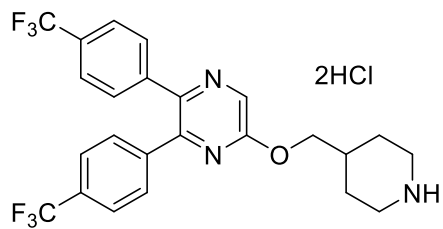
2,3-bis(3-bromophenyl)-5-(piperidin-4-ylmethoxy)pyrazine hydrochloride (18)



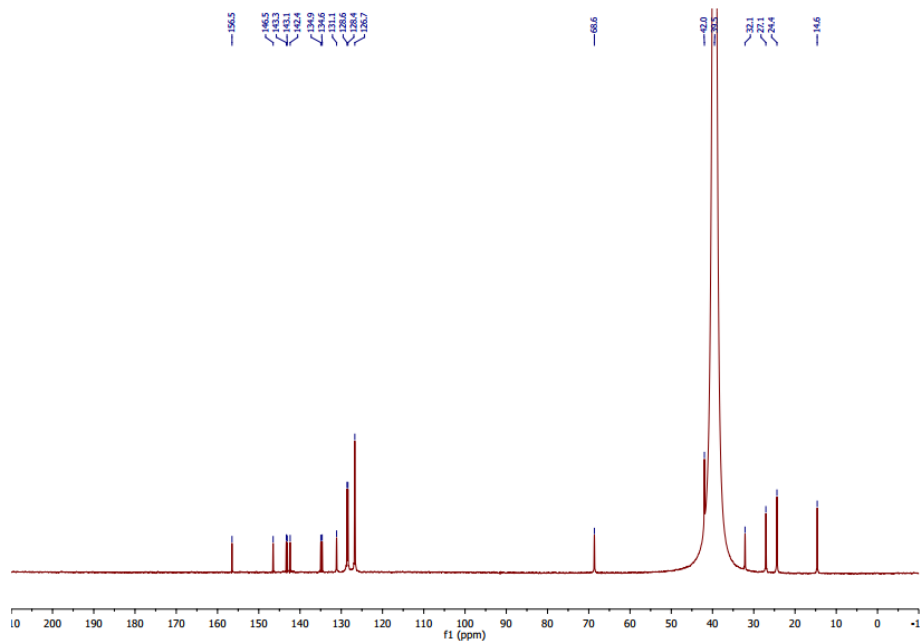
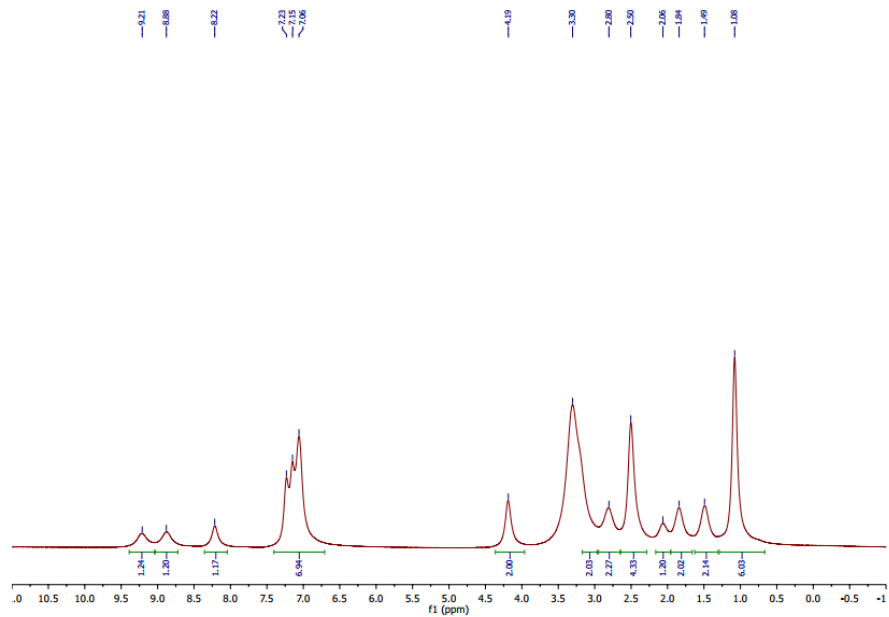
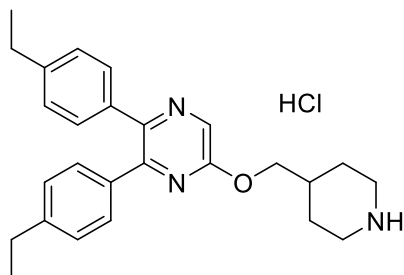
2,3-bis(4-methoxyphenyl)-5-(piperidin-4-ylmethoxy)pyrazine hydrochloride (19)



5-(piperidin-4-ylmethoxy)-2,3-bis(4-(trifluoromethyl)phenyl)pyrazine hydrochloride (20)

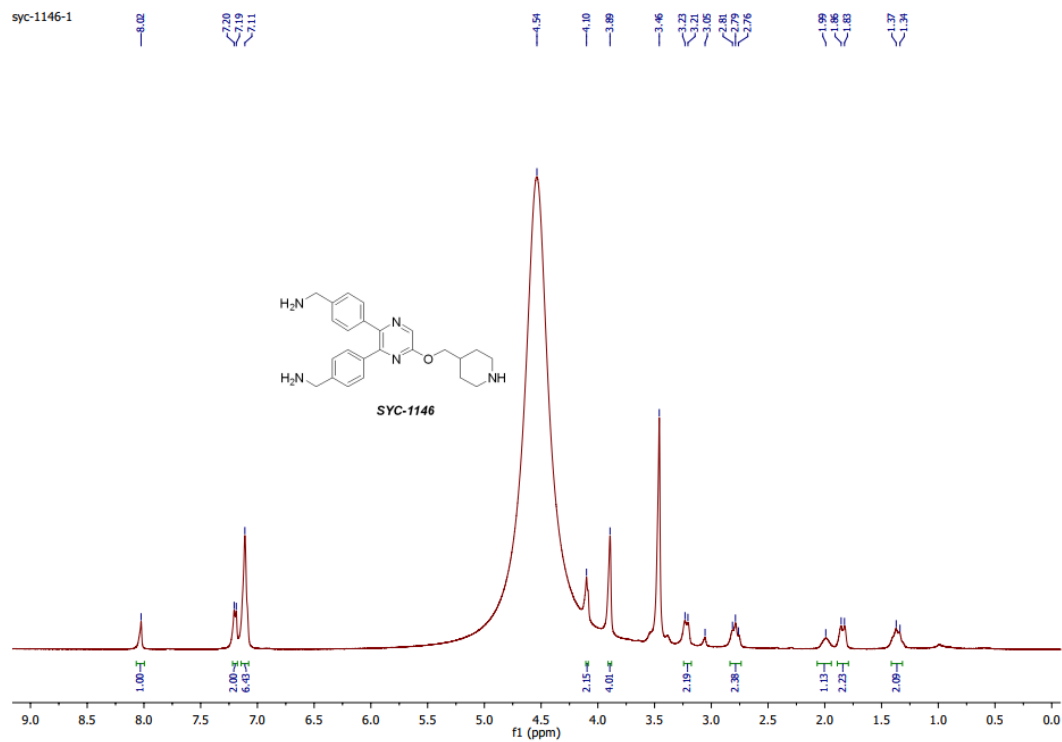


2,3-bis(4-ethylphenyl)-5-(piperidin-4-ylmethoxy)pyrazine hydrochloride (24)

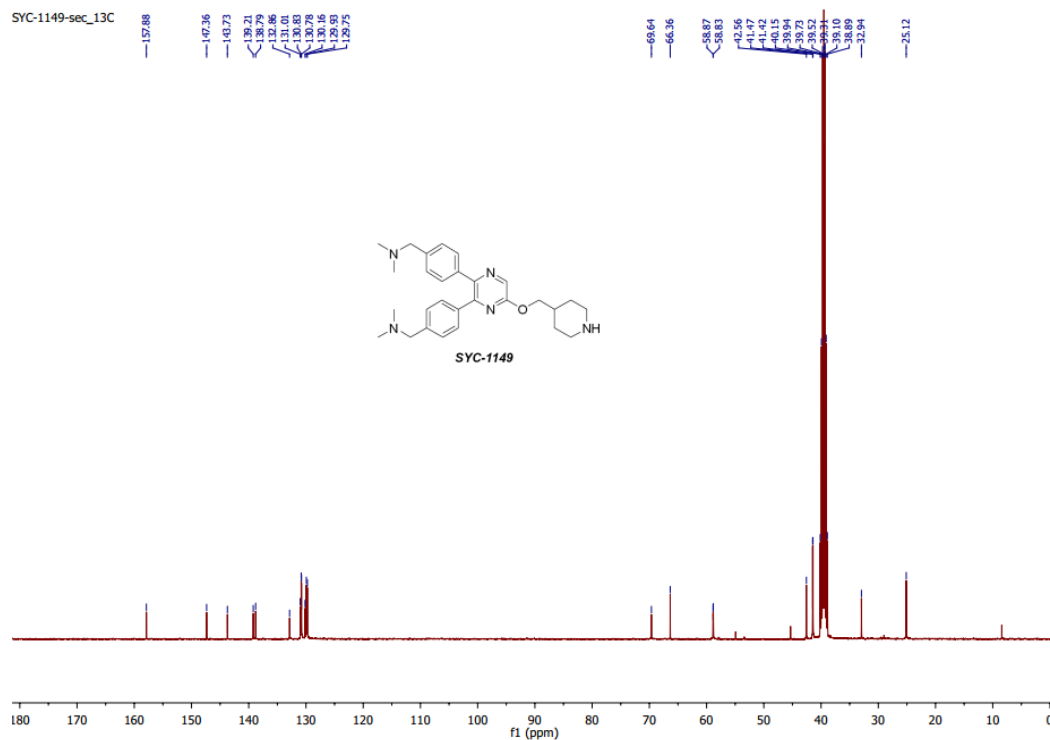
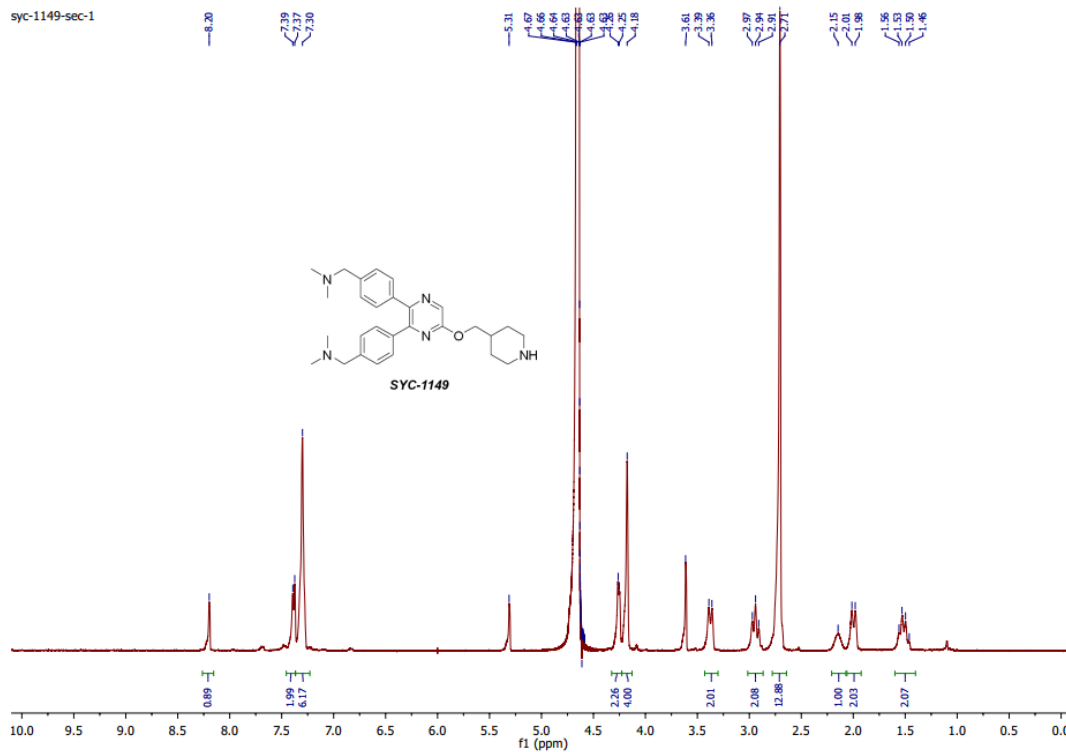


((5-(Piperidin-4-ylmethoxy)pyrazine-2,3-diyl)bis(4,1-phenylene)) dimethanamine hydrochloride

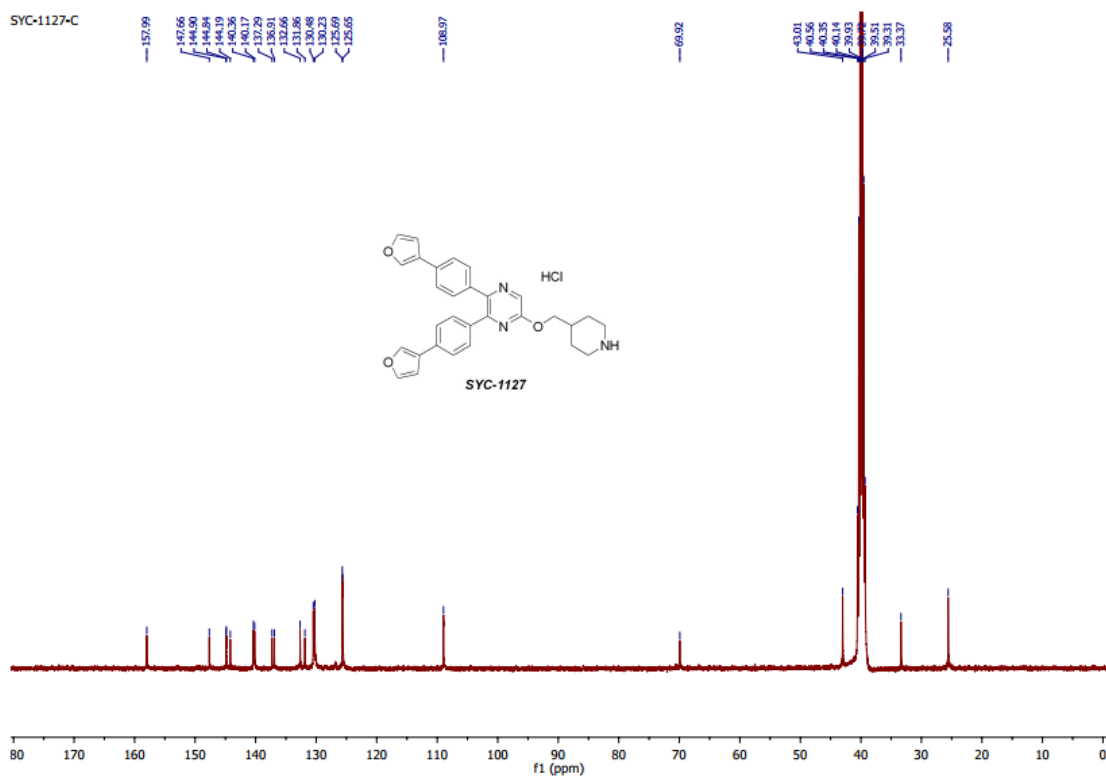
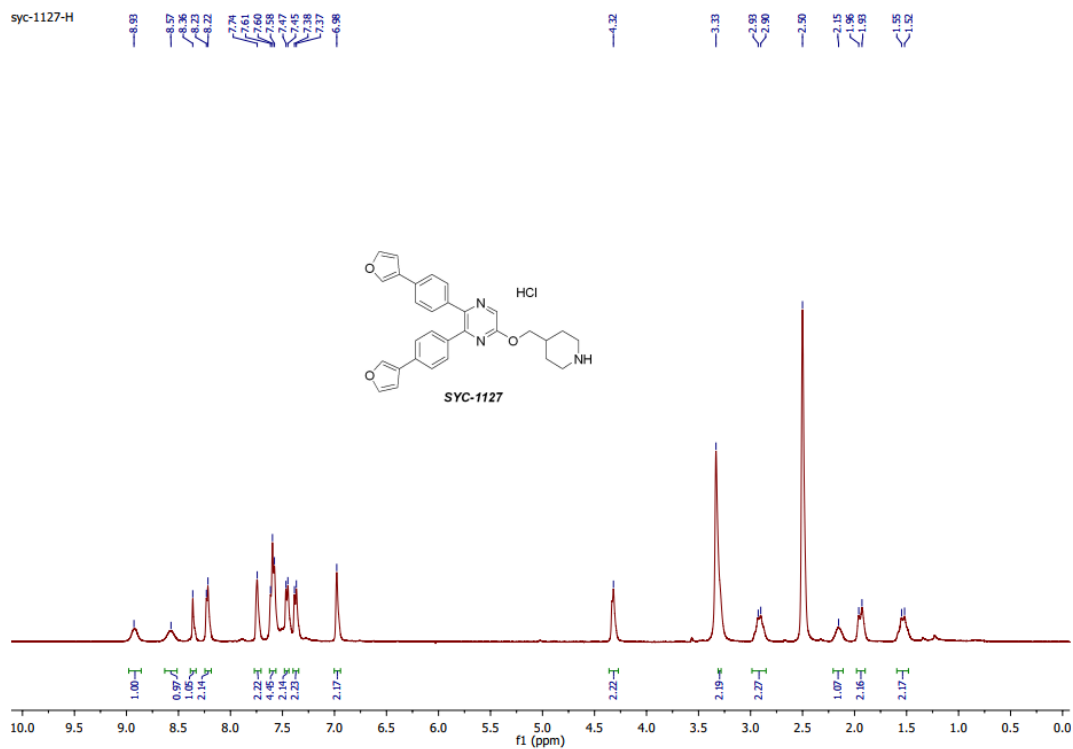
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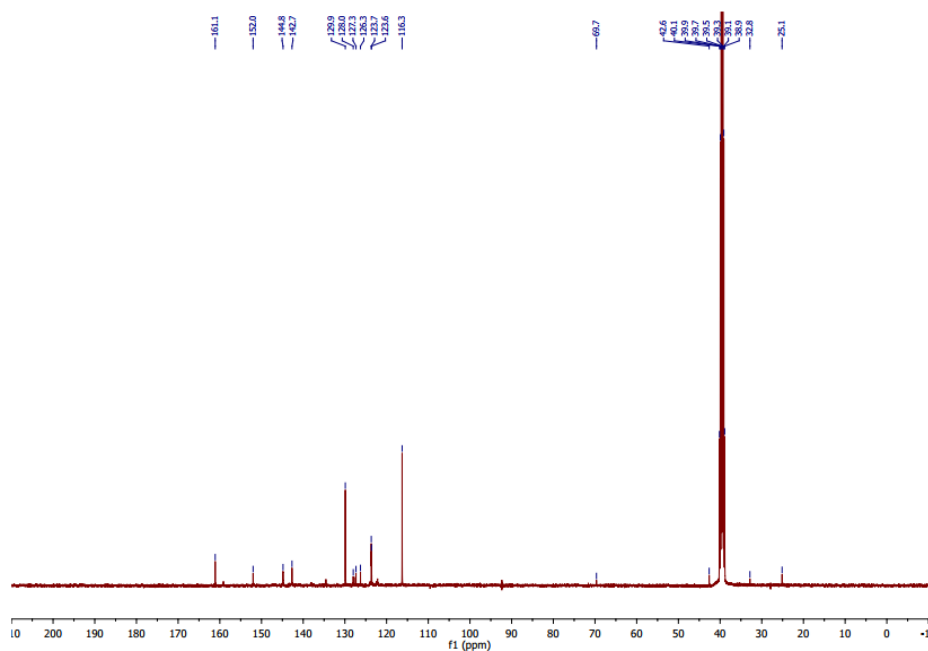
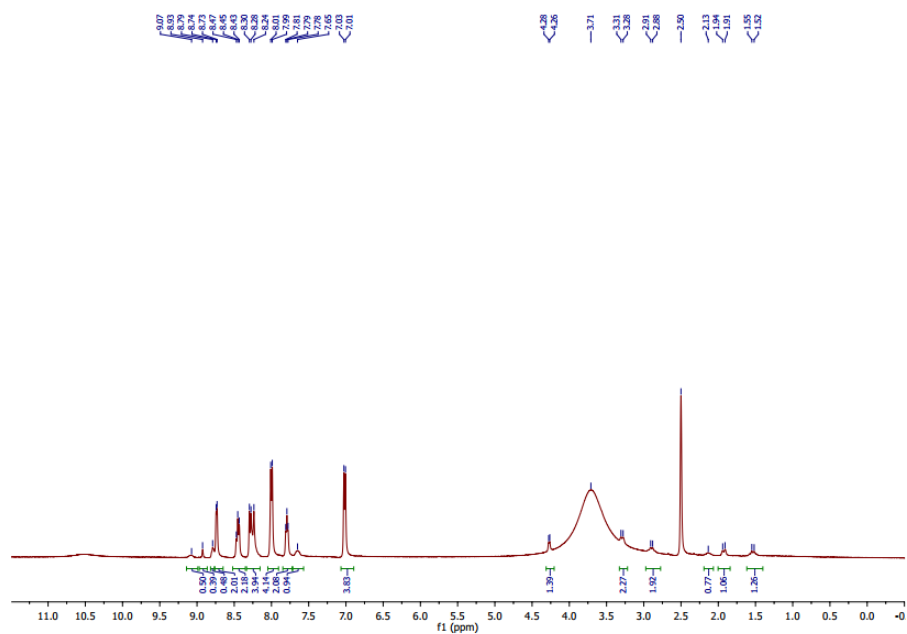
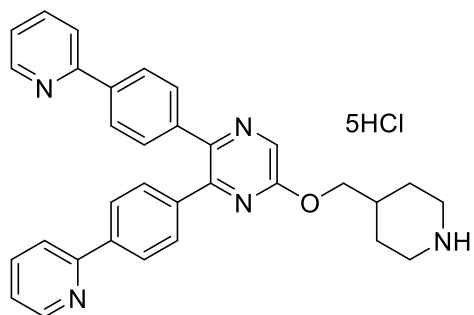
1,1'-((5-(Piperidin-4-ylmethoxy)pyrazine-2,3-diyl)bis(4,1-phenylene))bis(N,N-dimethylmethanamine) hydrochloride (28)



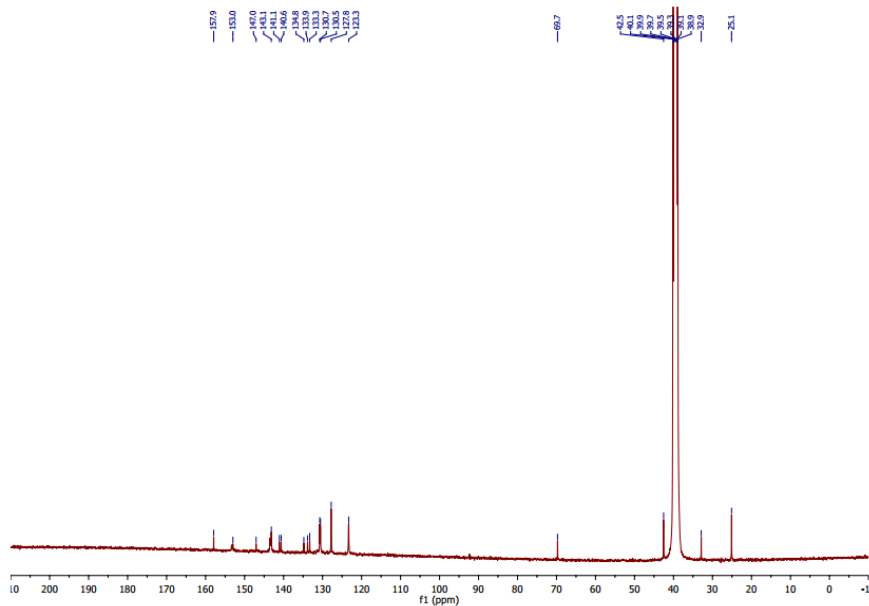
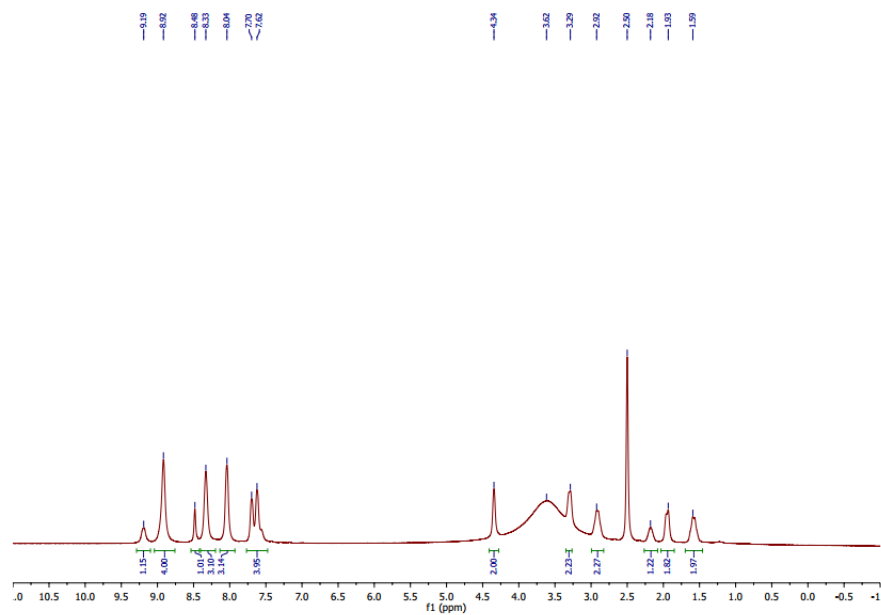
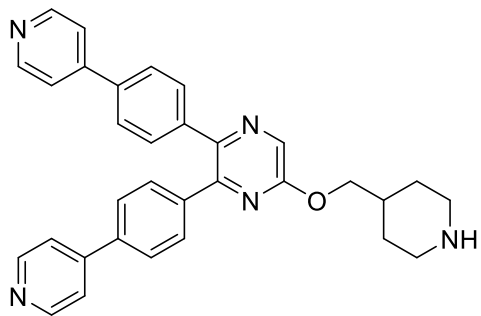
2,3-bis(4-(Furan-3-yl)phenyl)-5-(piperidin-4-ylmethoxy)pyrazine hydrochloride (29)



5-(Piperidin-4-ylmethoxy)-2,3-bis(4-(pyridin-3-yl)phenyl)pyrazine hydrochloride (30)



5-(Piperidin-4-ylmethoxy)-2,3-bis(4-(pyridin-4-yl)phenyl)pyrazine hydrochloride (31)



4',4''-(5-(piperidin-4-ylmethoxy)pyrazine-2,3-diyl)bis(4-aminobiphenyl) hydrochloride

(32)

