

Supplementary Material

Synthesis of novel drug-like small molecules library based on 1*H*-benzo[*d*]imidazole

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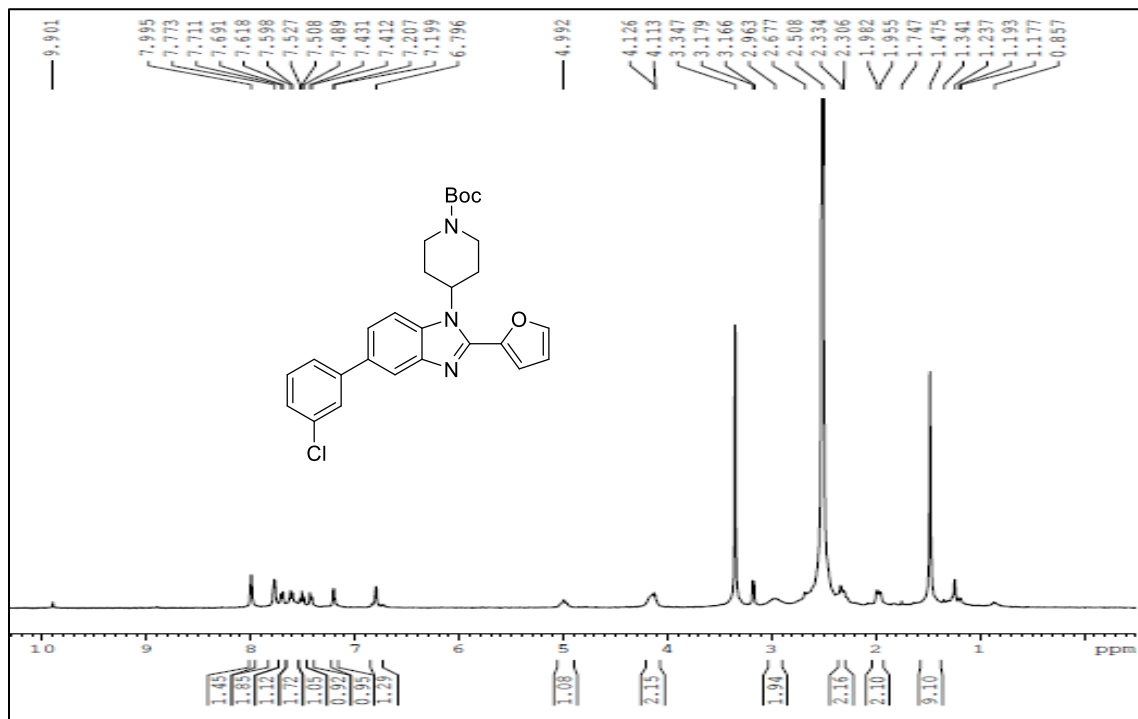
^BDepartment of Chemistry, Organic Chemistry Research Centre, K. R. T. Arts, B. H. Commerce and A. M. Science College, Gangapur Road, Nashik 422 002, Maharashtra, India

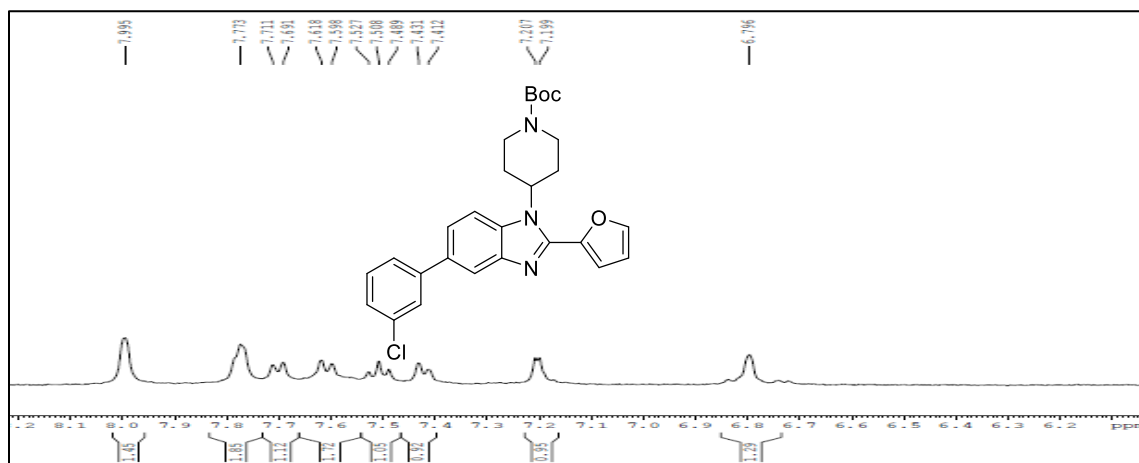
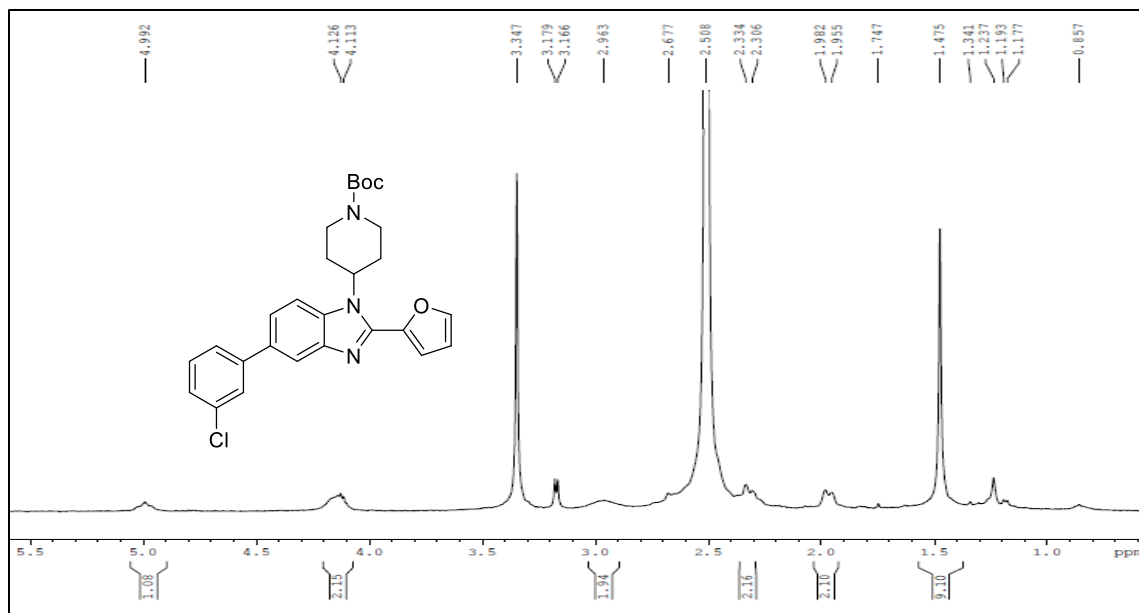
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Contents

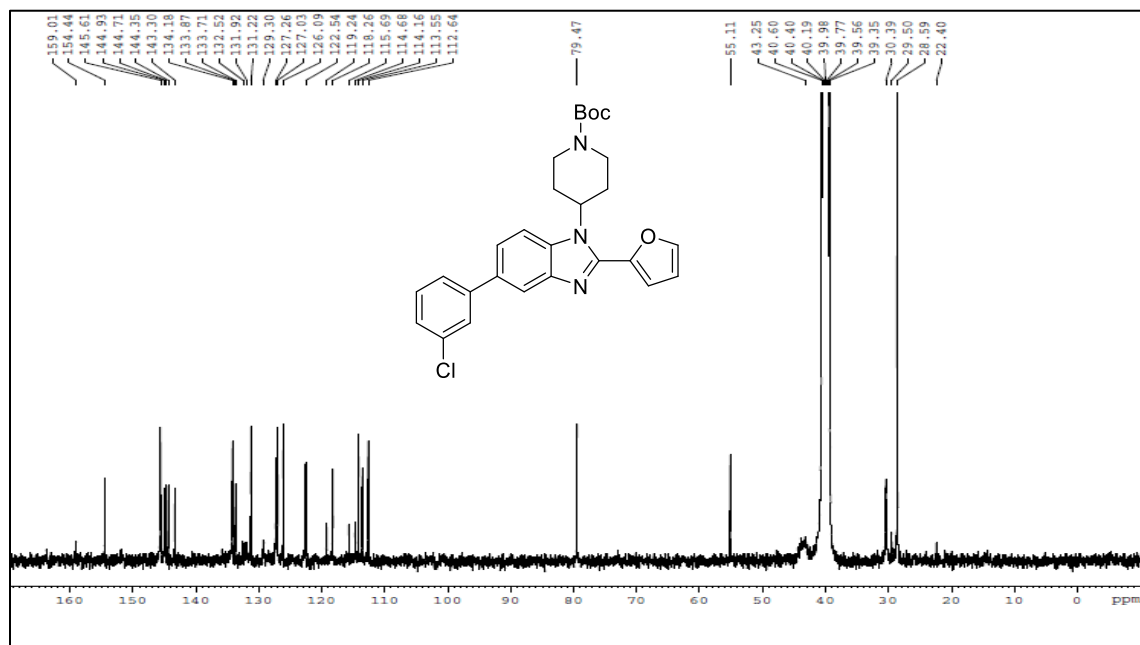
1. Copies of ^1H -NMR spectra
2. Copies of ^{13}C -NMR spectra
3. Copies of Mass spectra

^1H NMR tert-butyl 4-(5-(3-chlorophenyl)-2-(furan-2-yl)-1H-benzo[d]imidazol-1-yl)piperidine-1-carboxylate.(6a)

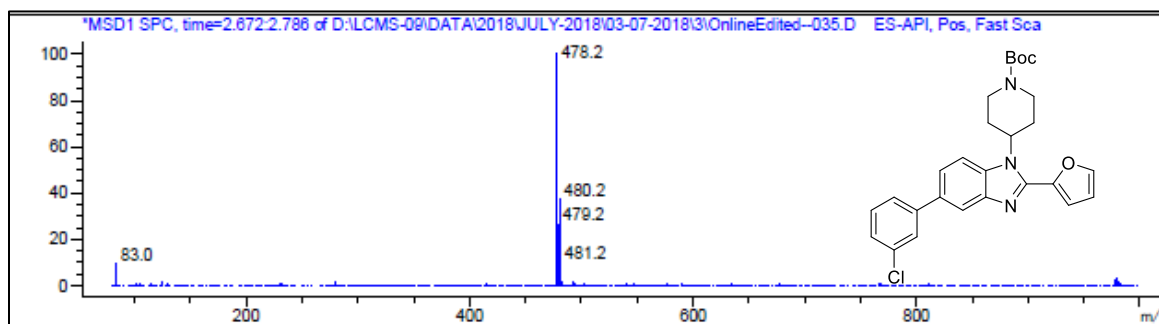
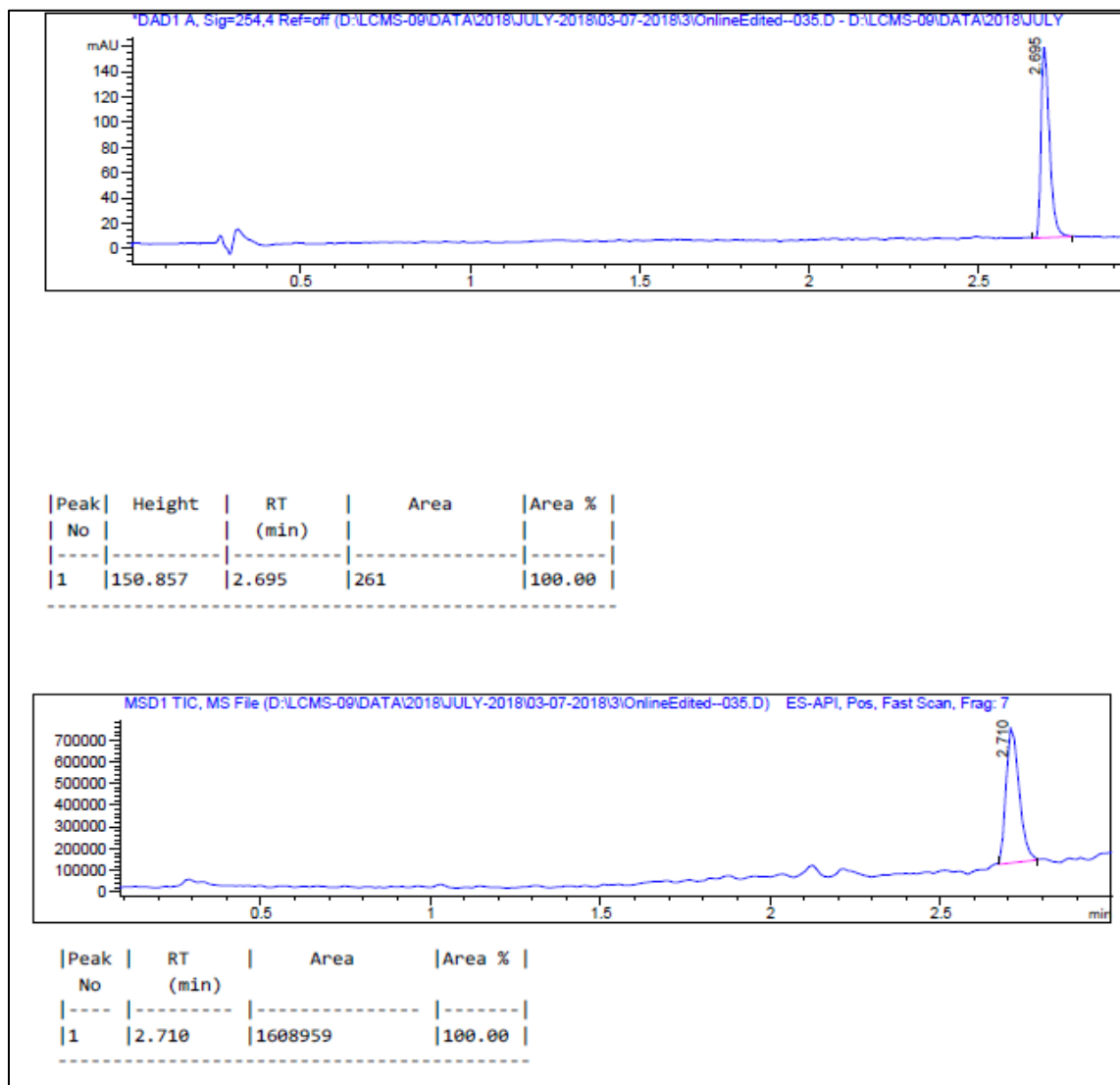




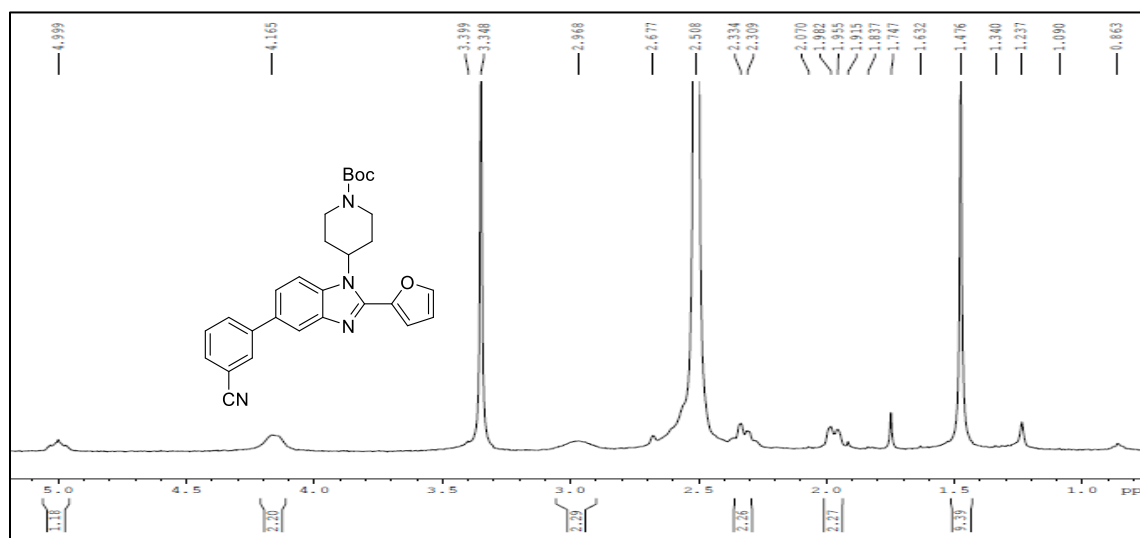
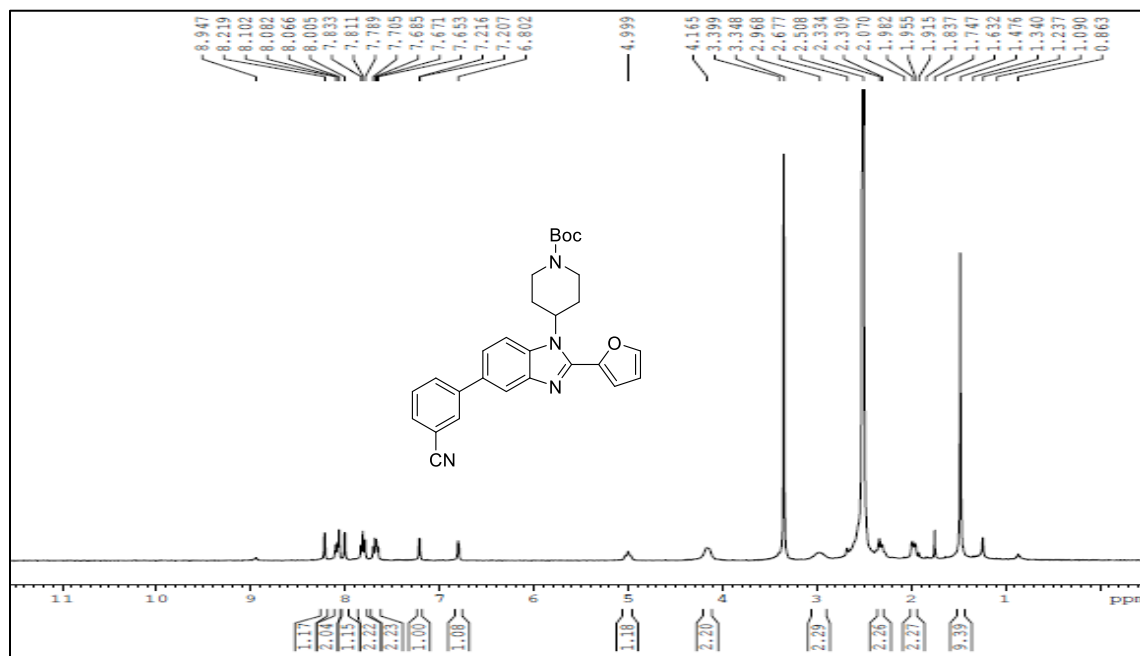
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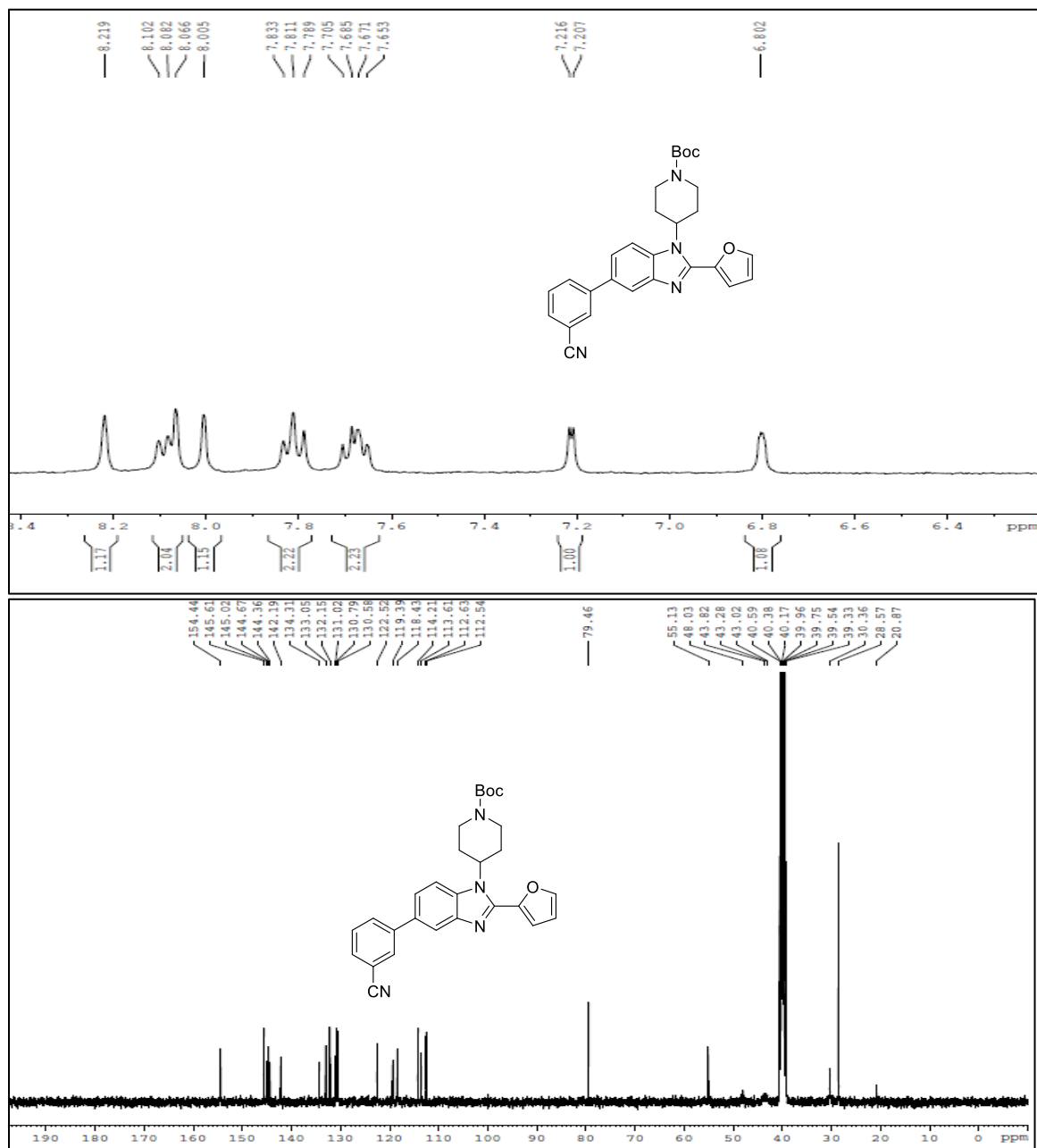
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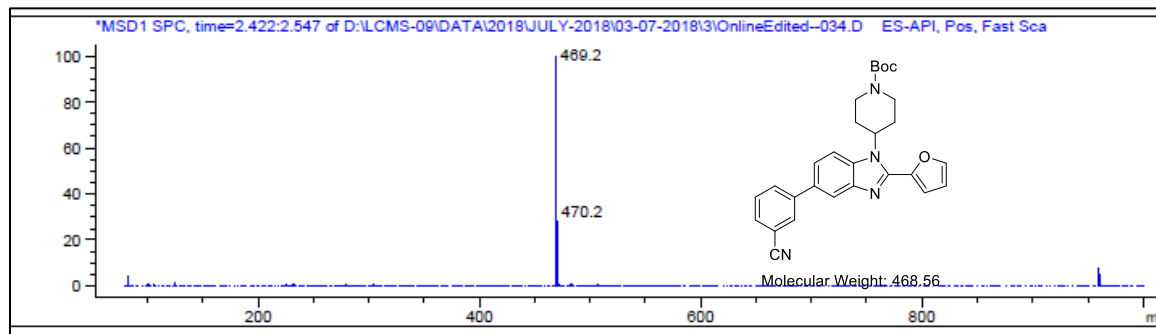
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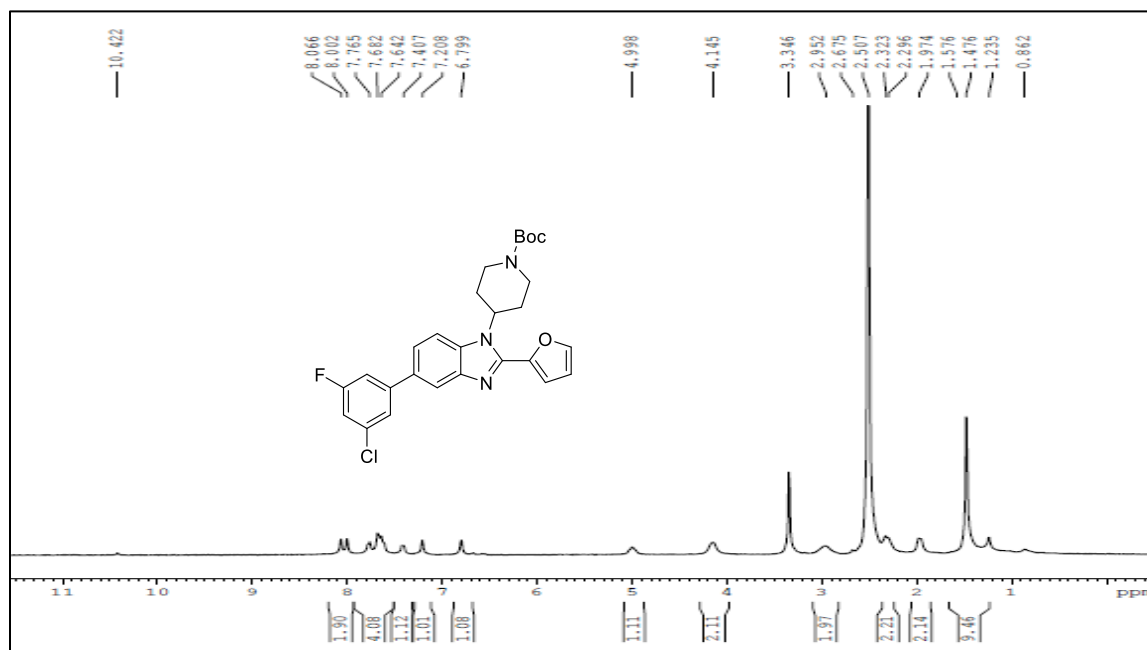
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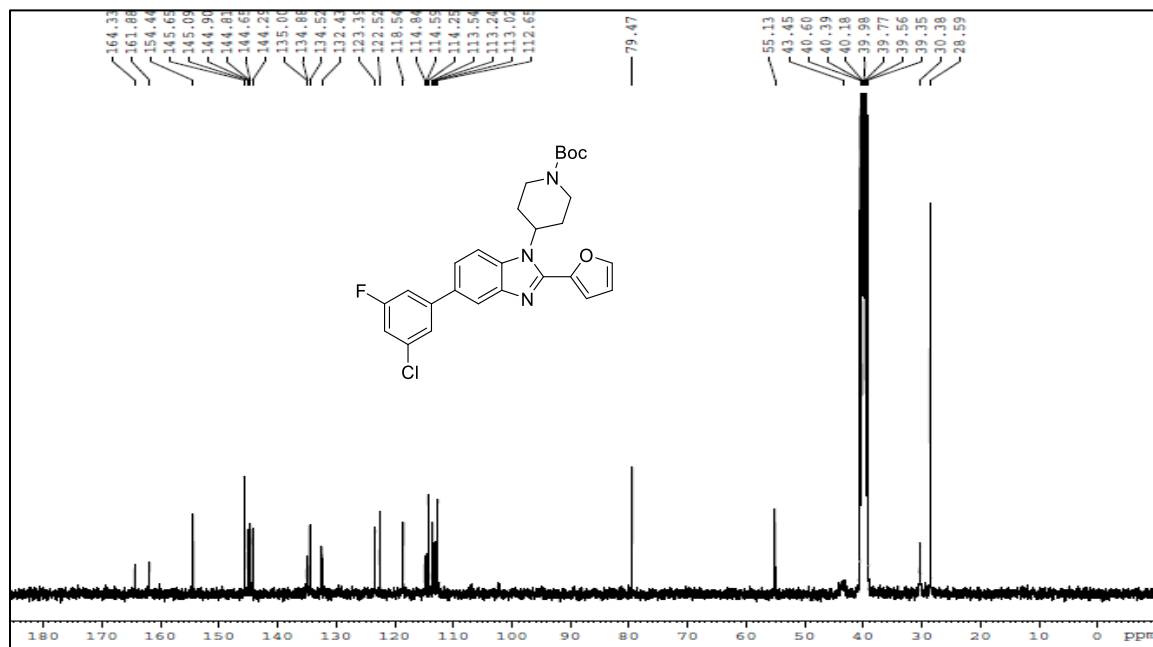
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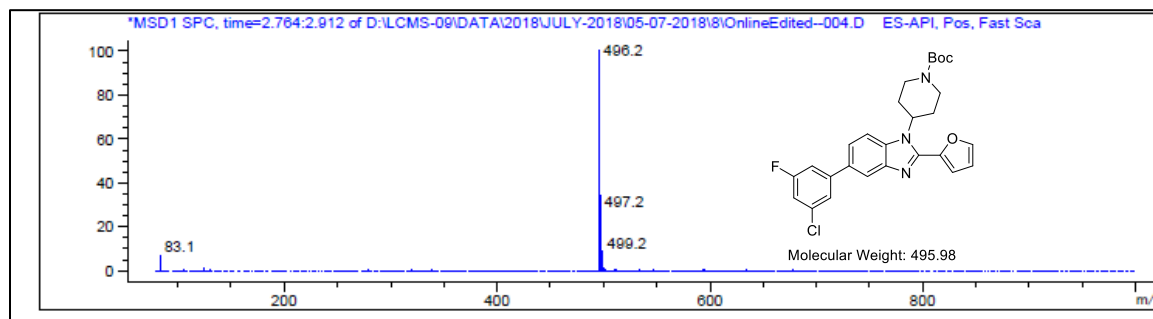
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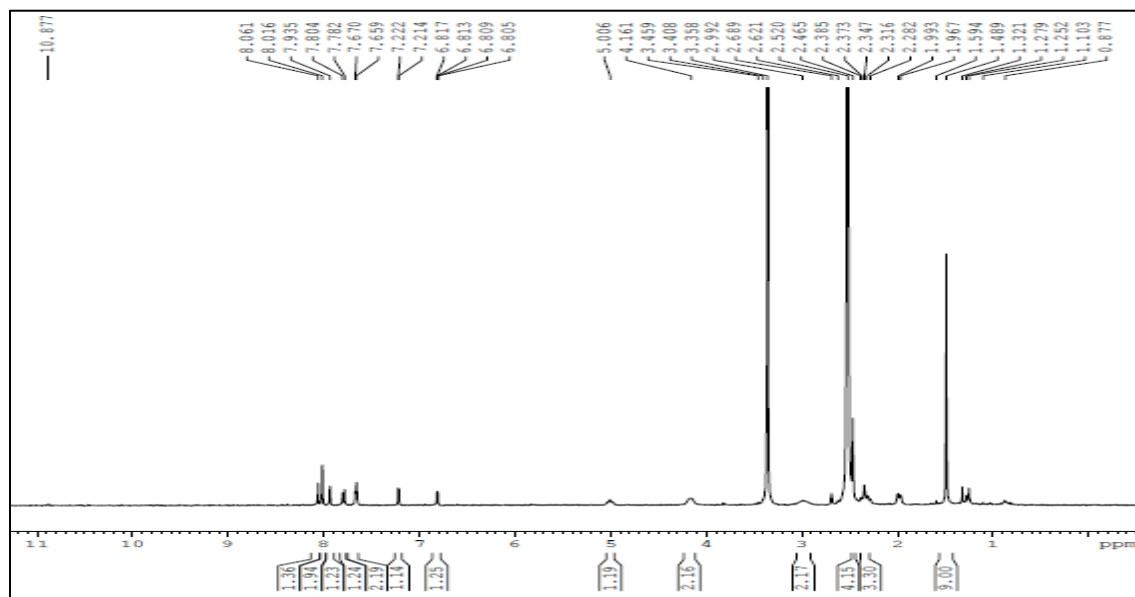
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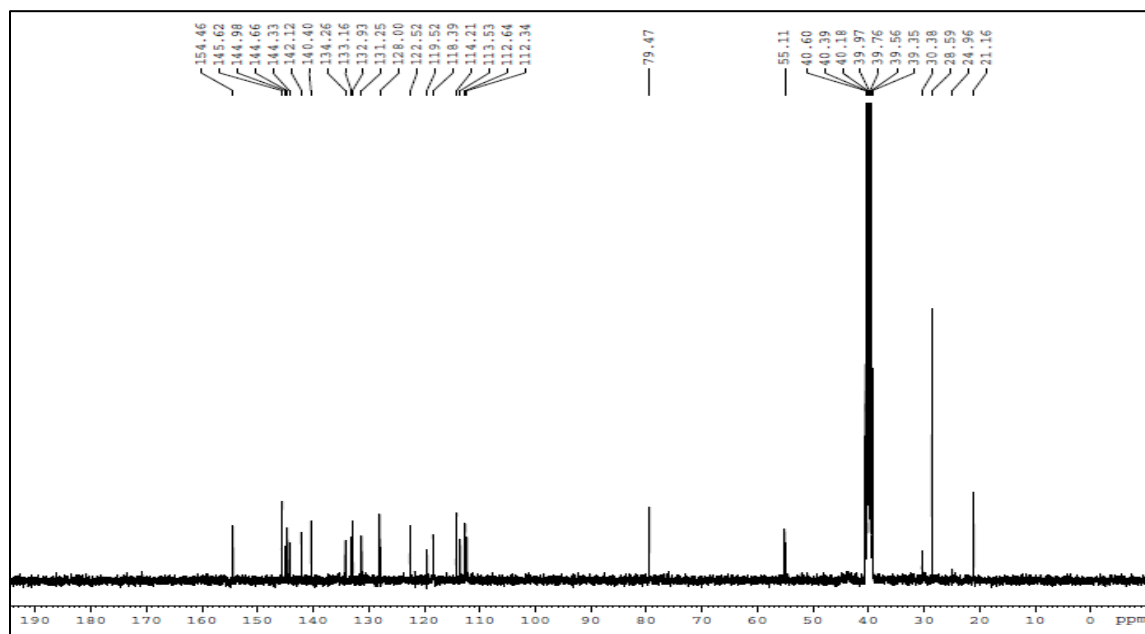
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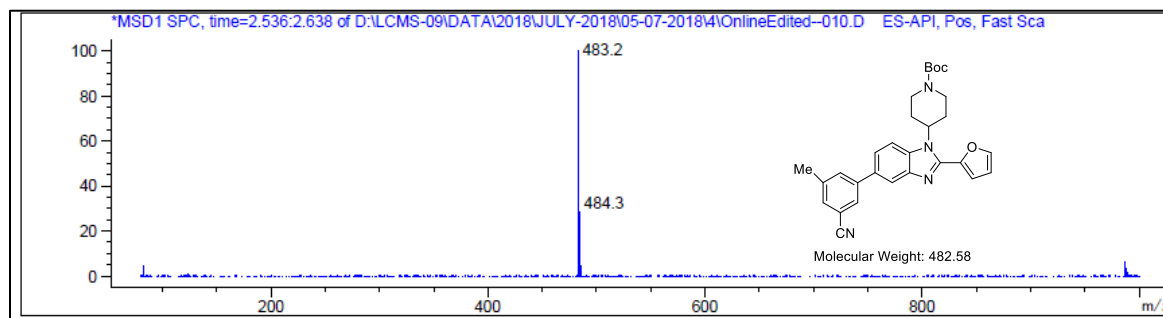
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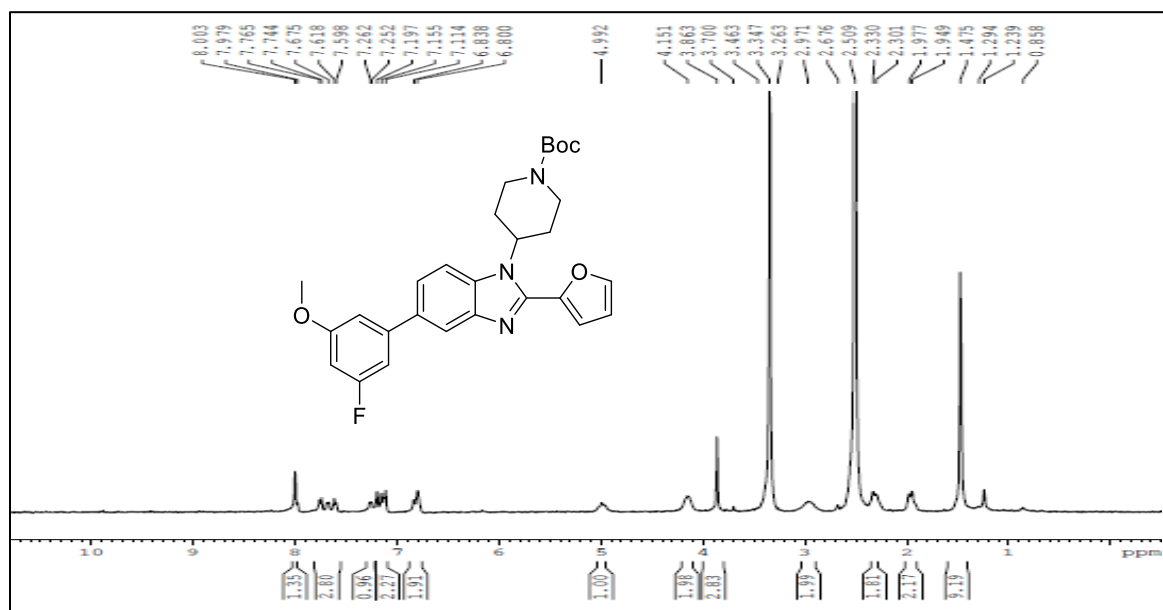
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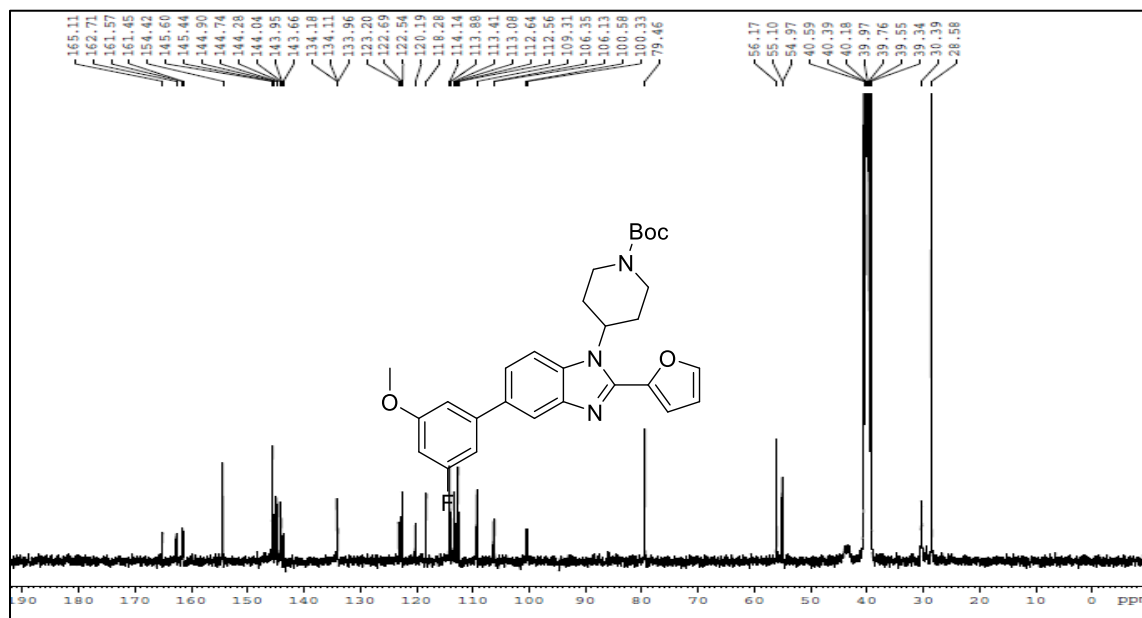
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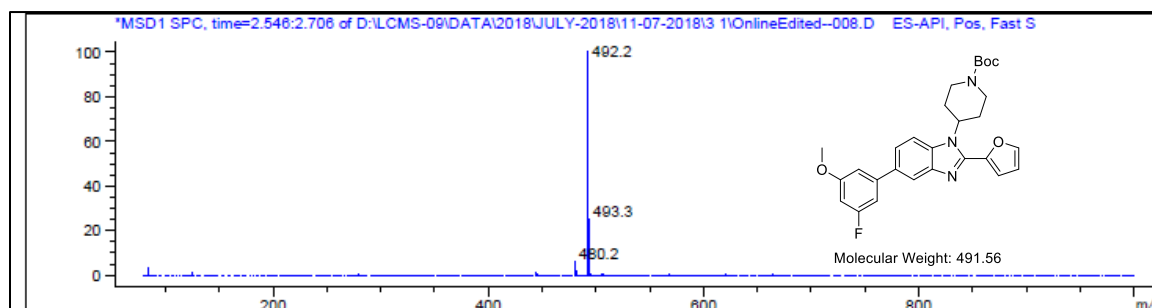
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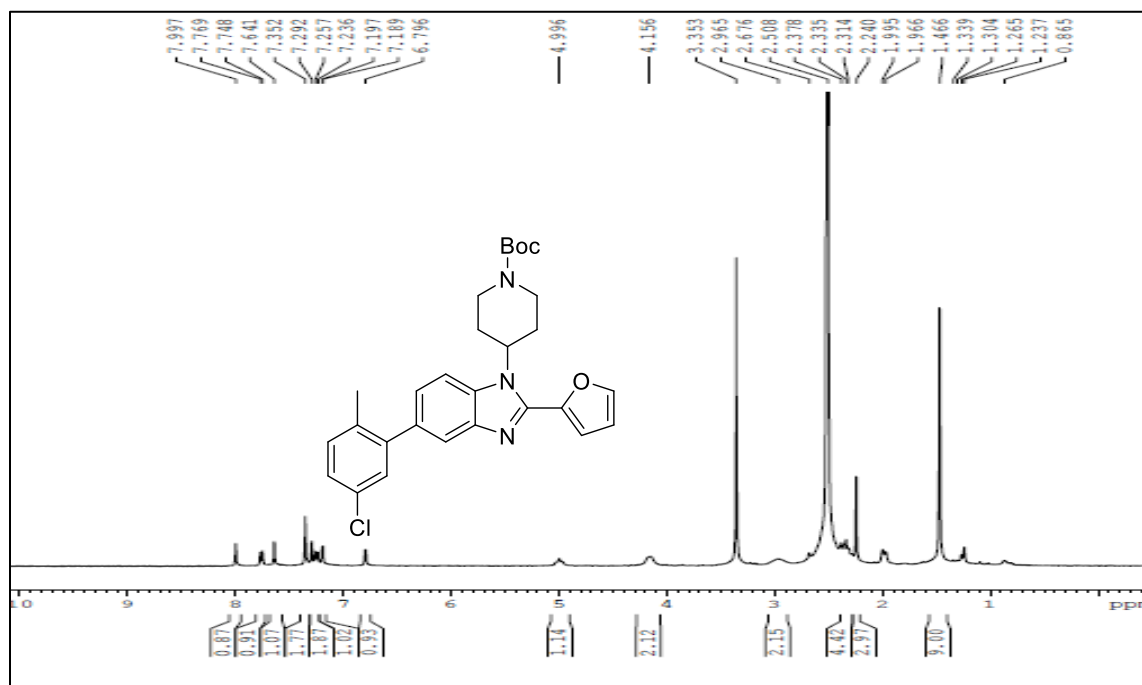
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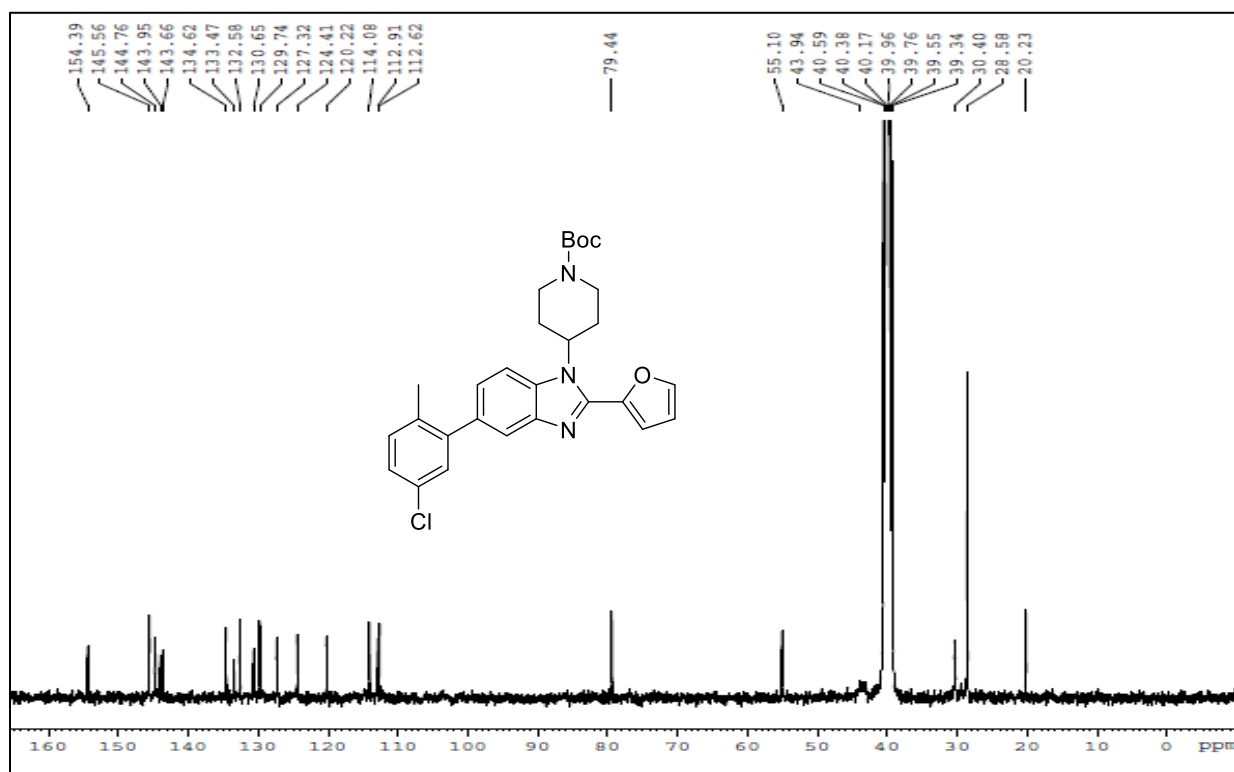
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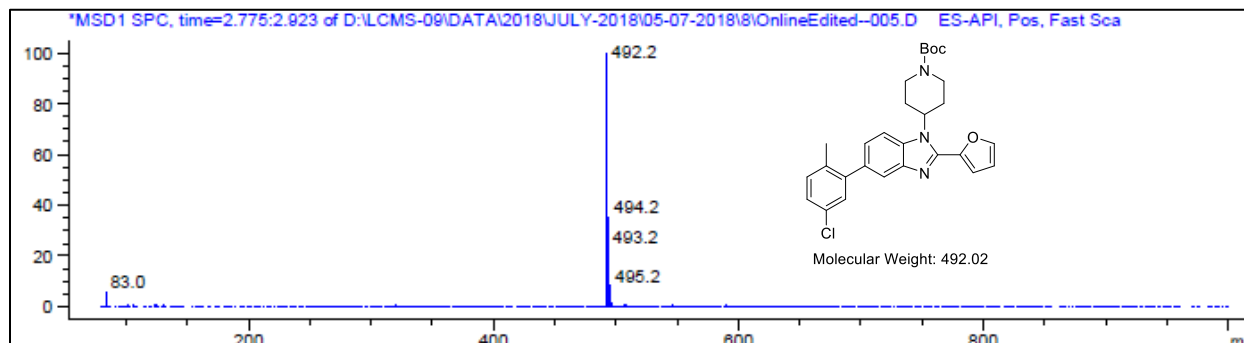
¹H NMR of tert-butyl 4-(5-(5-chloro-2-methylphenyl)-2-(furan-2-yl)-1H-benzo[d]imidazol-1-yl)piperidine-1-carboxylate (6f).



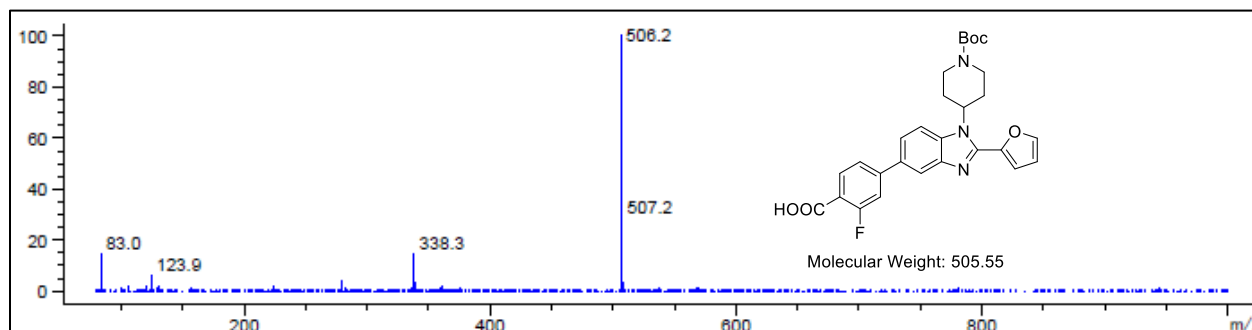
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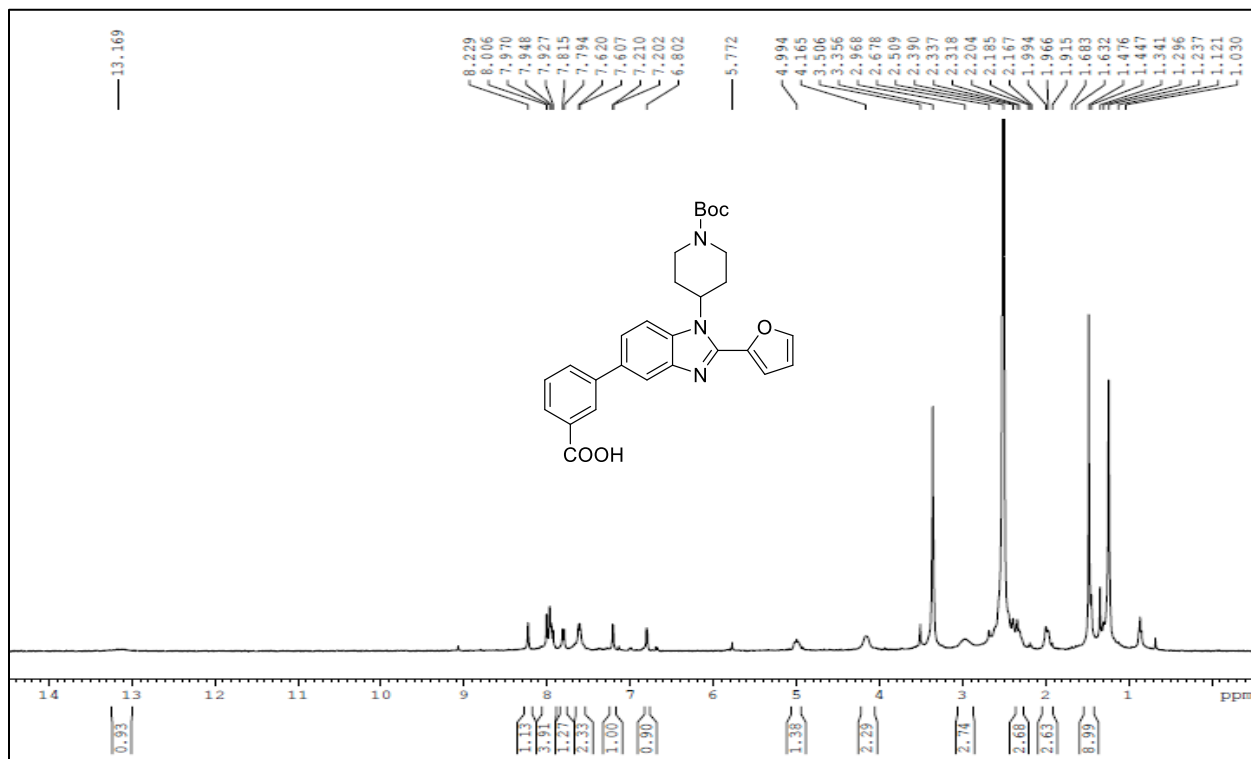
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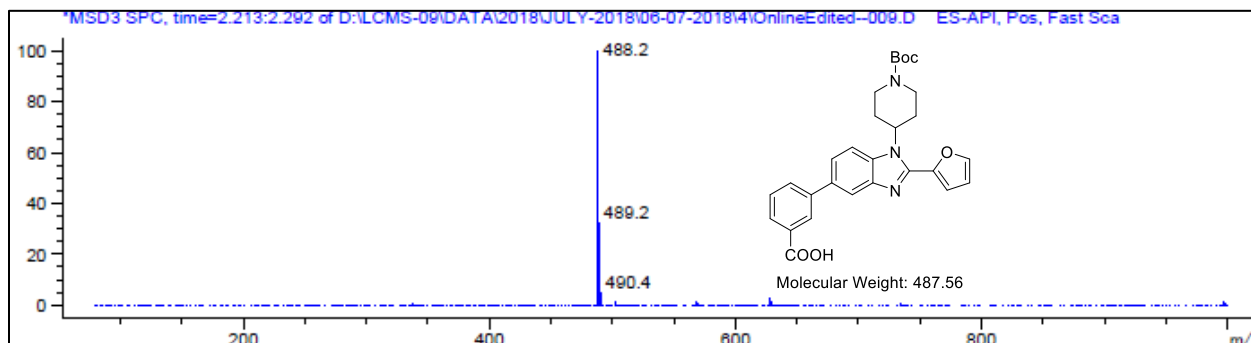
Mass analysis of 4-(1-(1-(tert-butoxycarbonyl)piperidin-4-yl)-2-(furan-2-yl)-1H-benzo[d]imidazol-5-yl)-2-fluorobenzoic acid (6g).



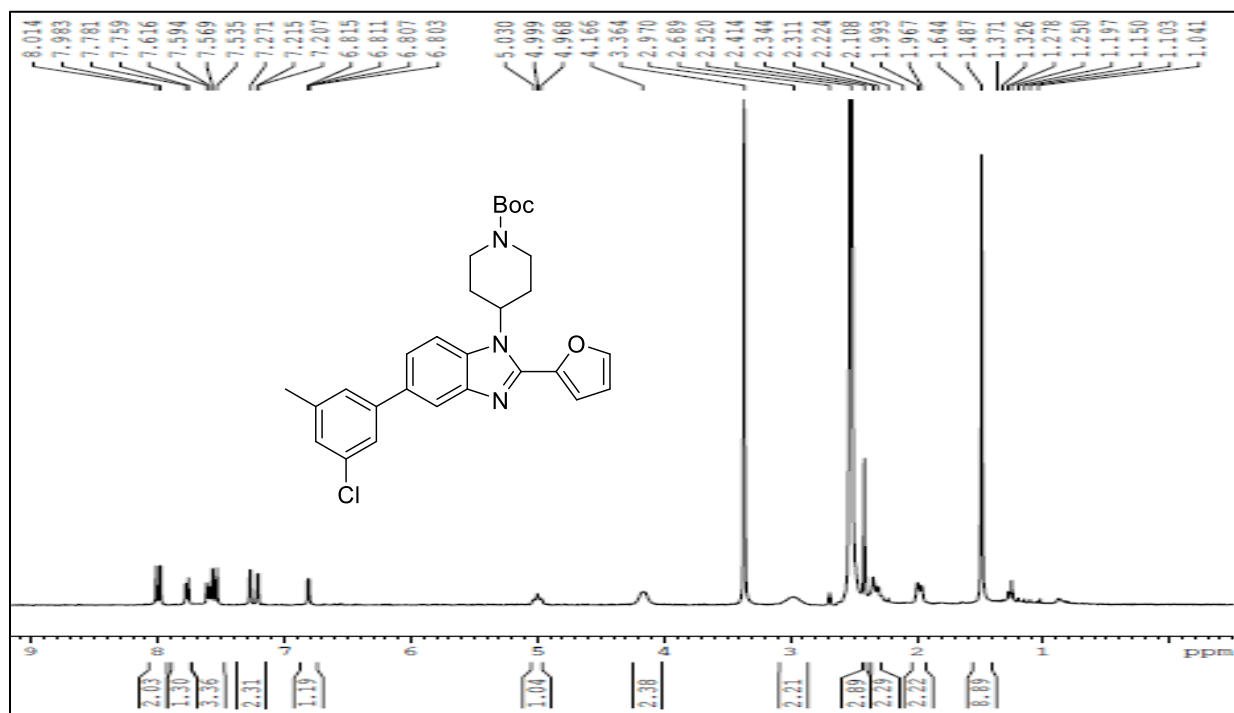
^1H NMR of 3-(1-(1-(tert-butoxycarbonyl)piperidin-4-yl)-2-(furan-2-yl)-1H-benzo[d]imidazol-5-yl)benzoic acid (6h).



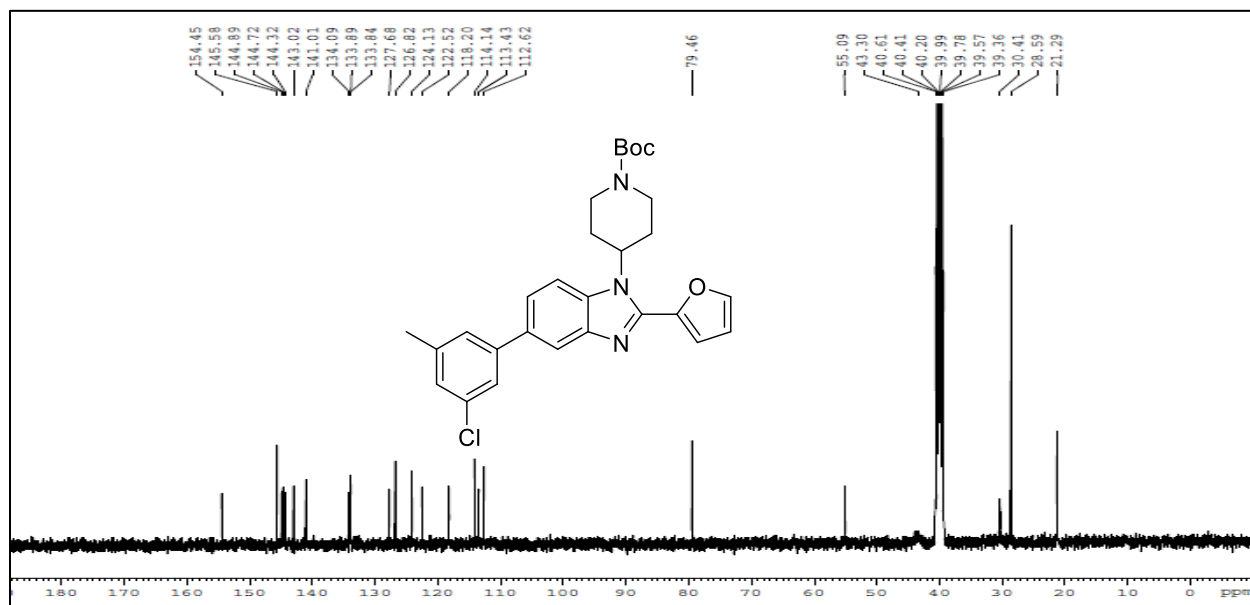
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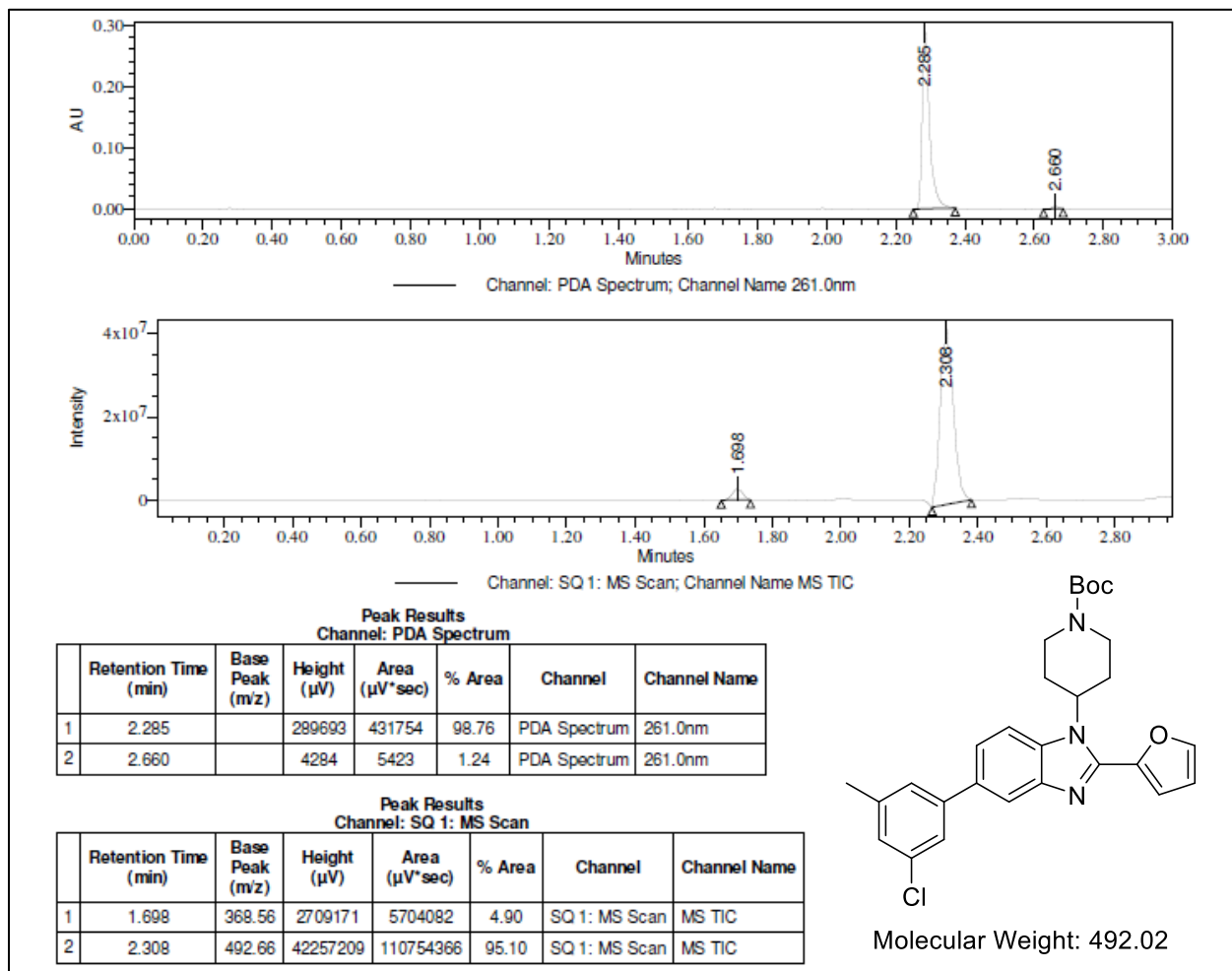
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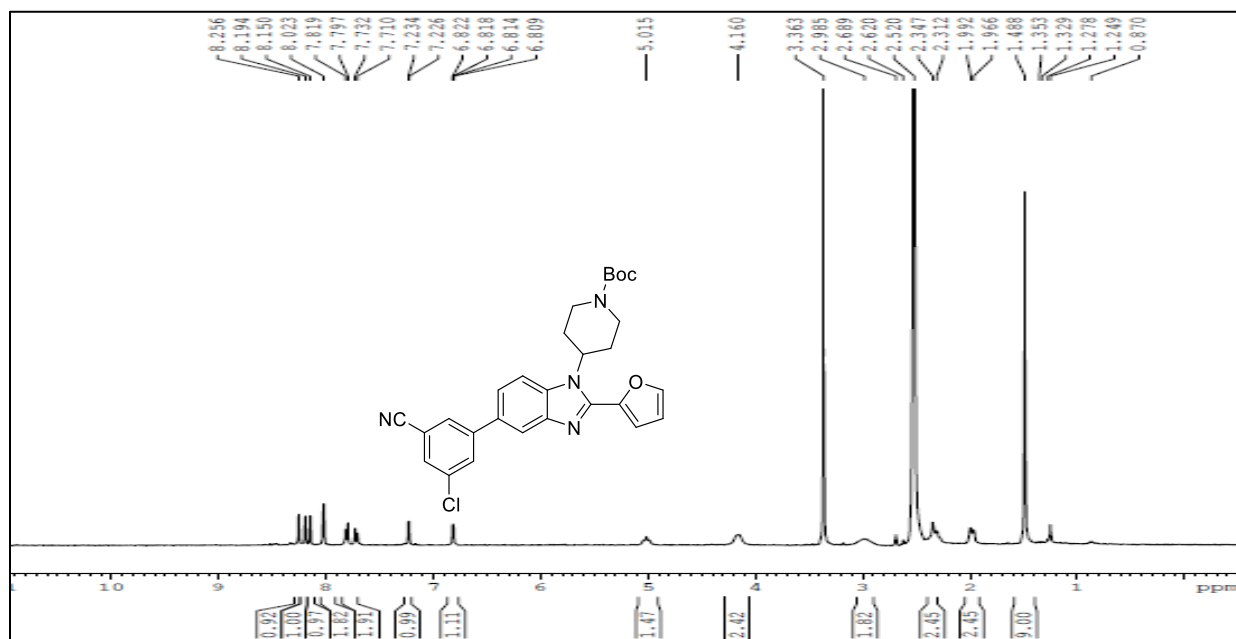
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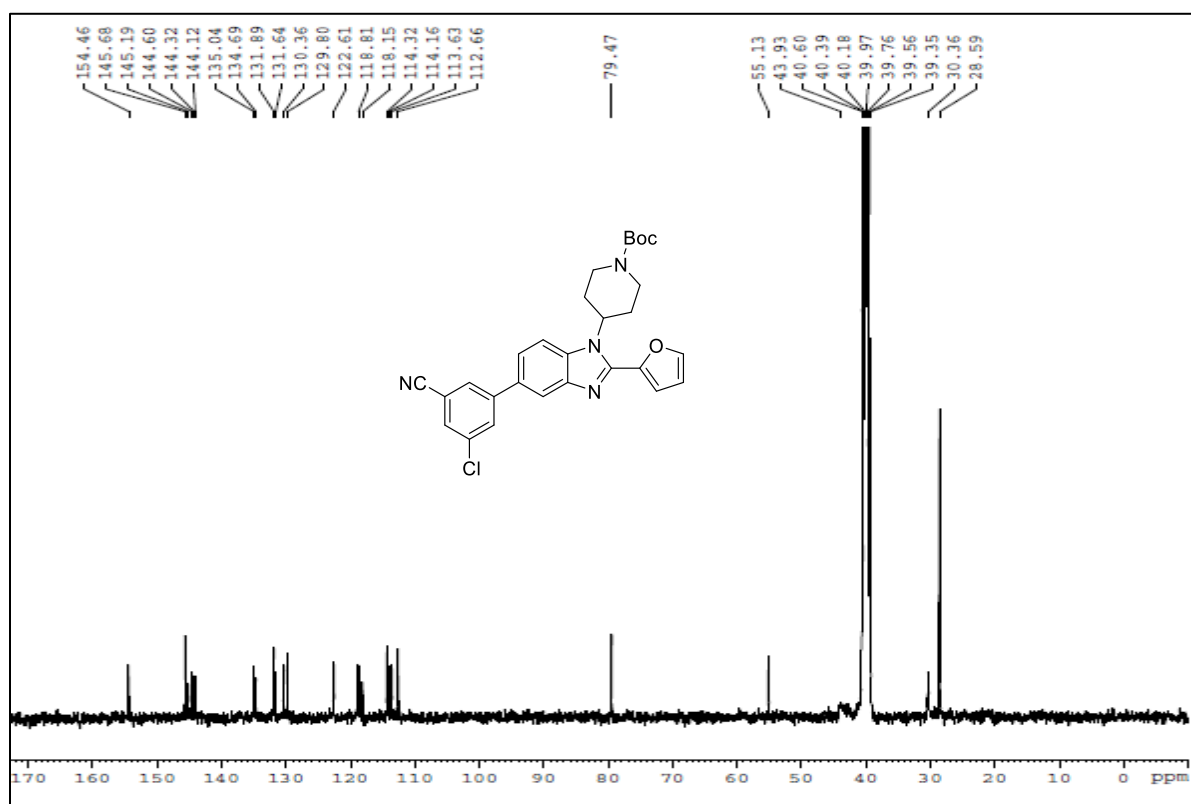
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^1H NMR of tert-butyl 4-(5-(3-chloro-5-cyanophenyl)-2-(furan-2-yl)-1H-benzo[d]imidazol-1-yl)piperidine-1-carboxylate (6j).



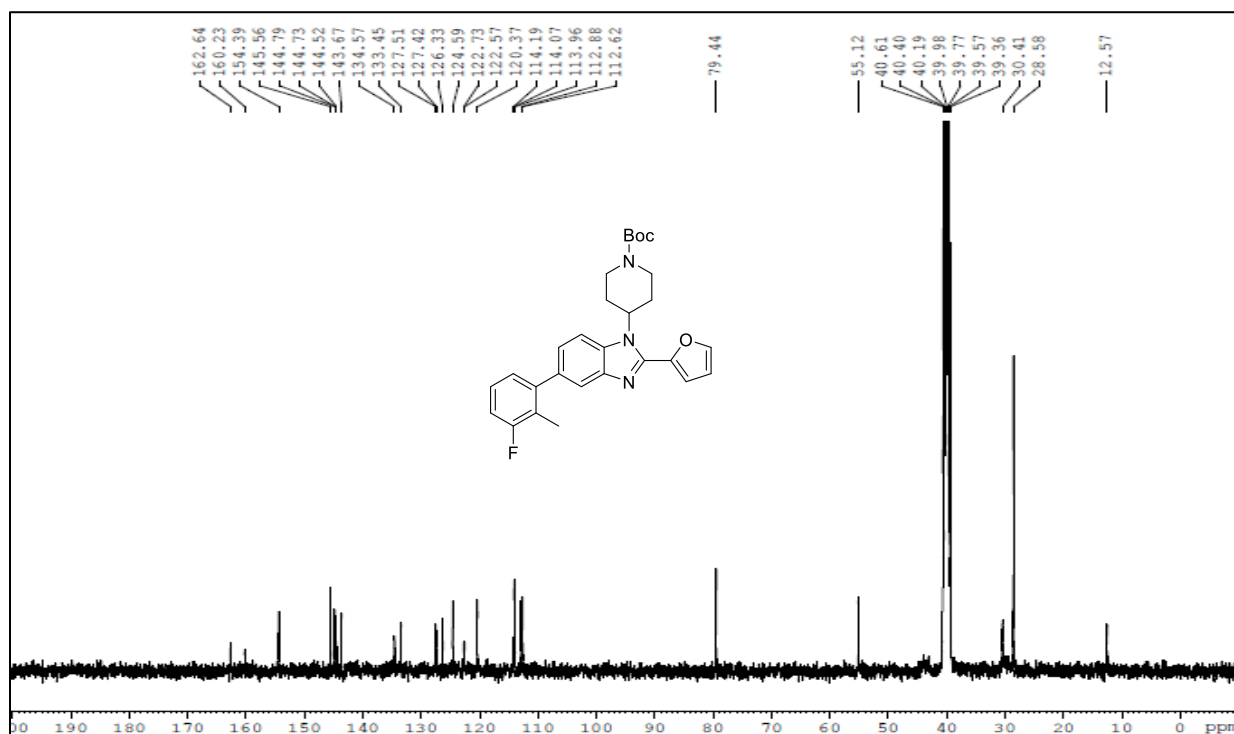
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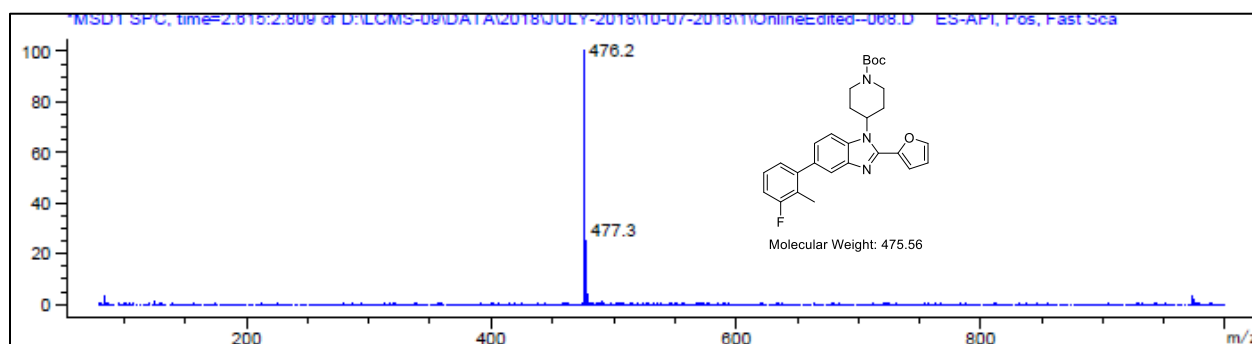
^1H NMR of tert-butyl 4-(5-(3-fluoro-2-methylphenyl)-2-(furan-2-yl)-1H-benzo[d]imidazol-1-yl)piperidine-1-carboxylate (6k).



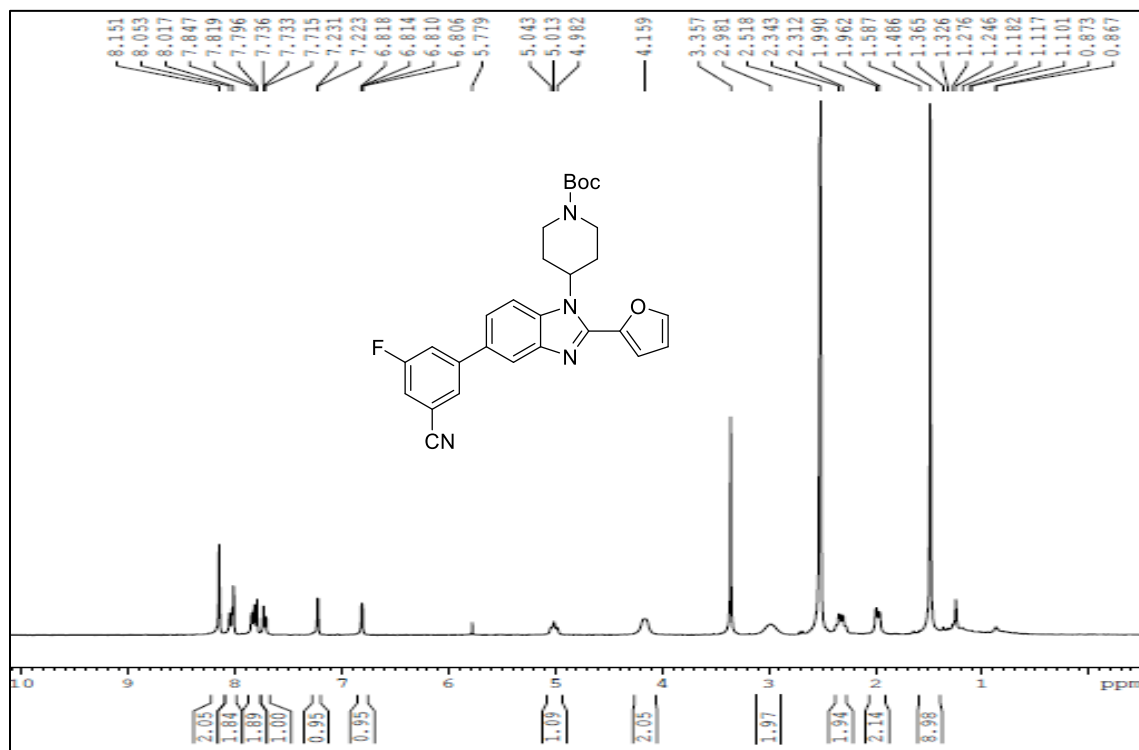
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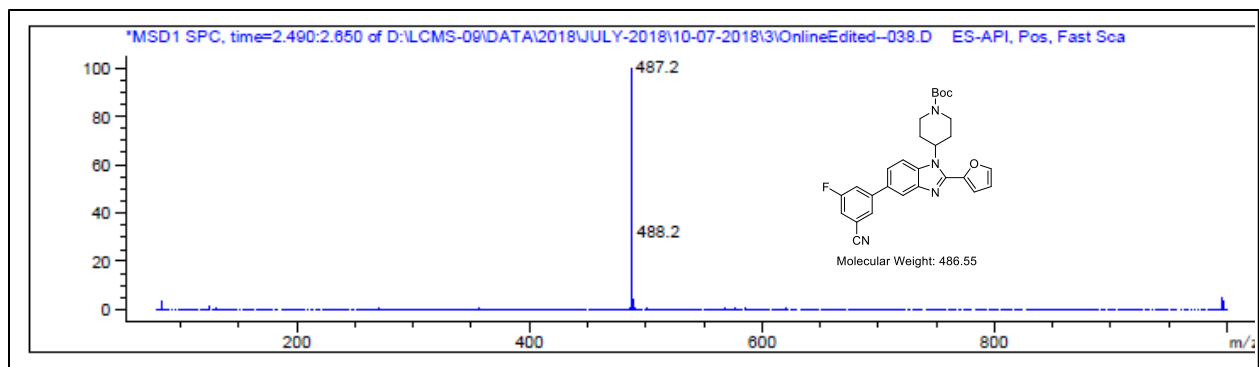
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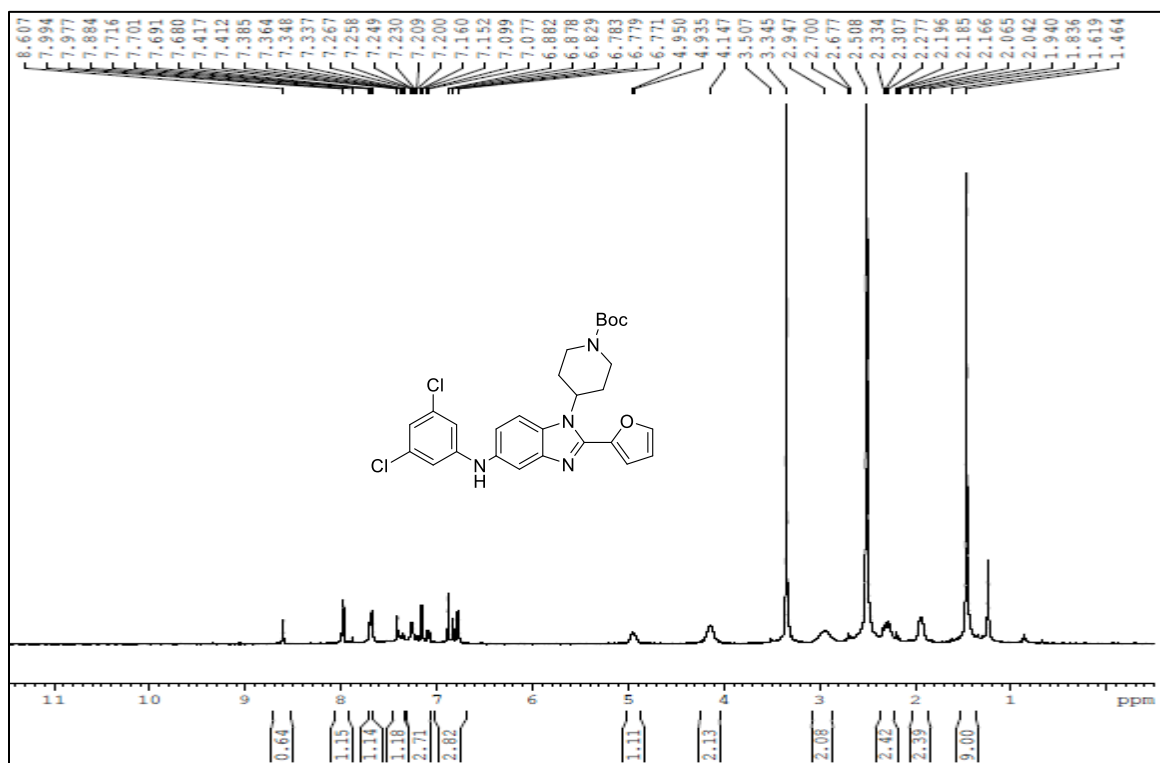
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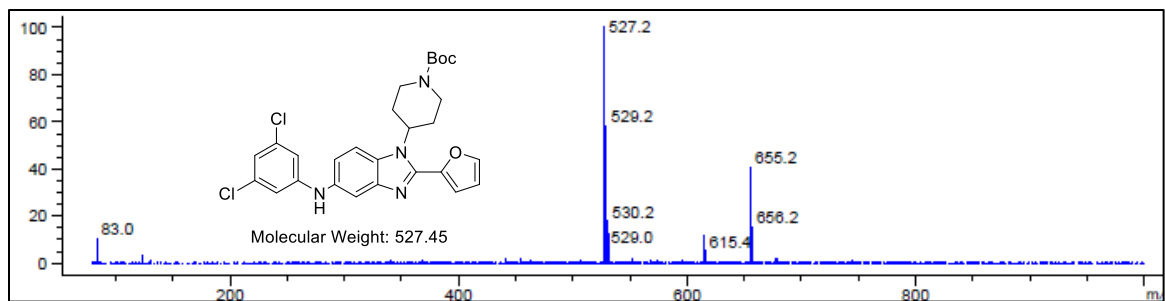
Mass spectra of tert-butyl 4-(5-(3-cyano-5-fluorophenyl)-2-(furan-2-yl)-1H-benzo[d]imidazol-1-yl)piperidine-1-carboxylate (6l).



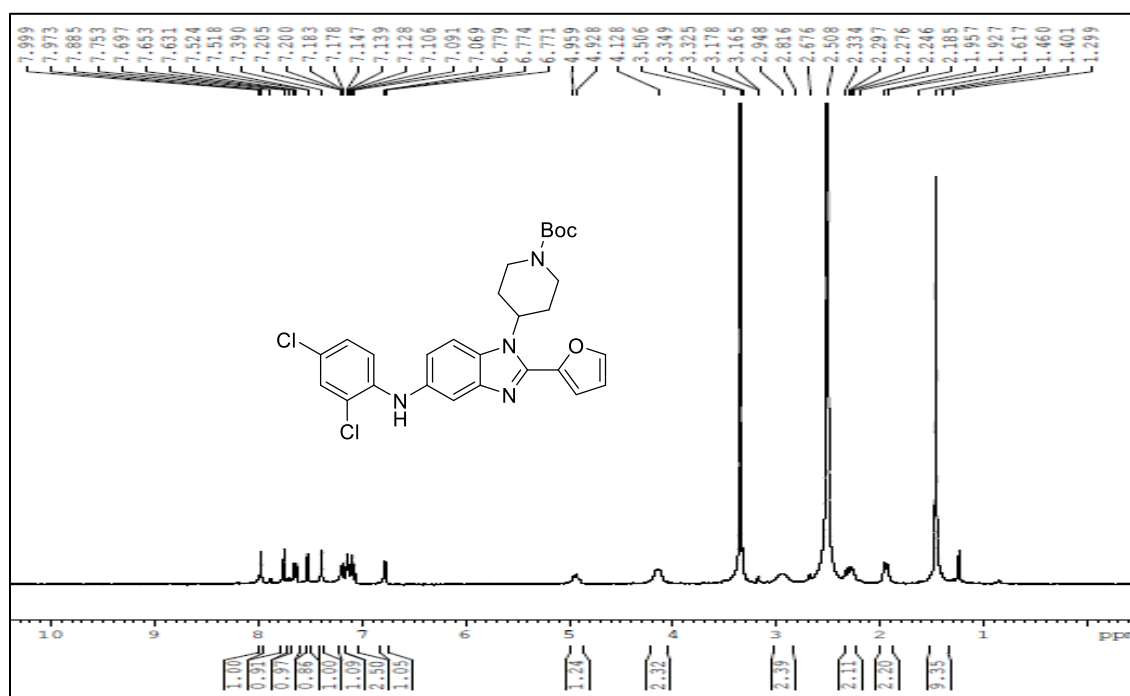
^1H NMR of tert-butyl 4-(5-((3,5-dichlorophenyl)amino)-2-(furan-2-yl)-1H-benzo[d]imidazol-1-yl)piperidine-1-carboxylate (7a).



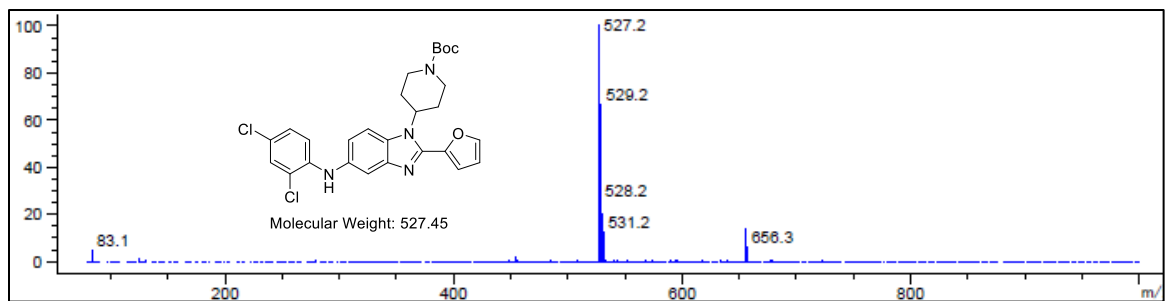
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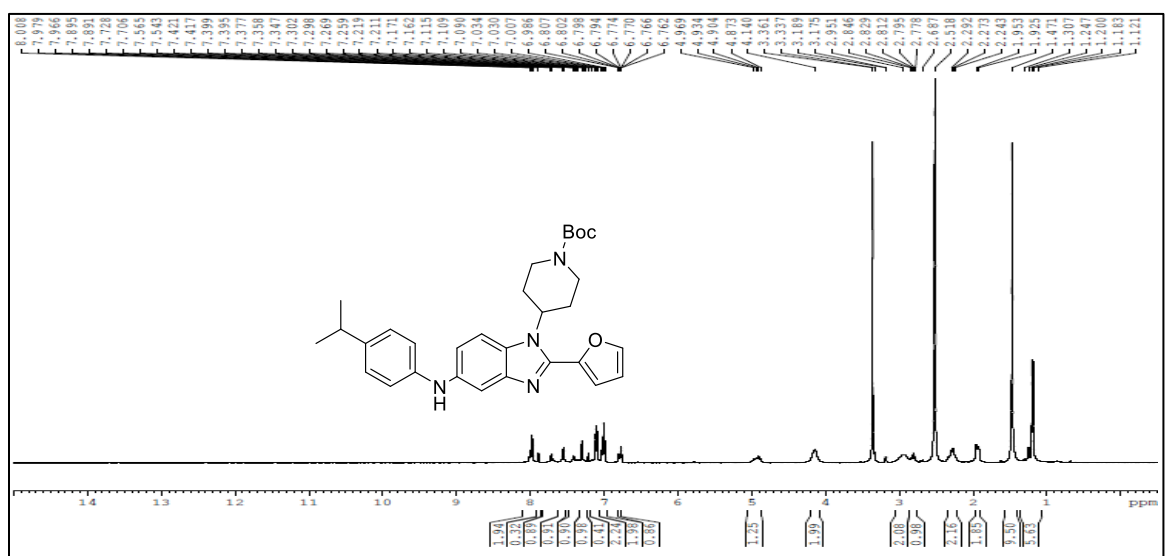
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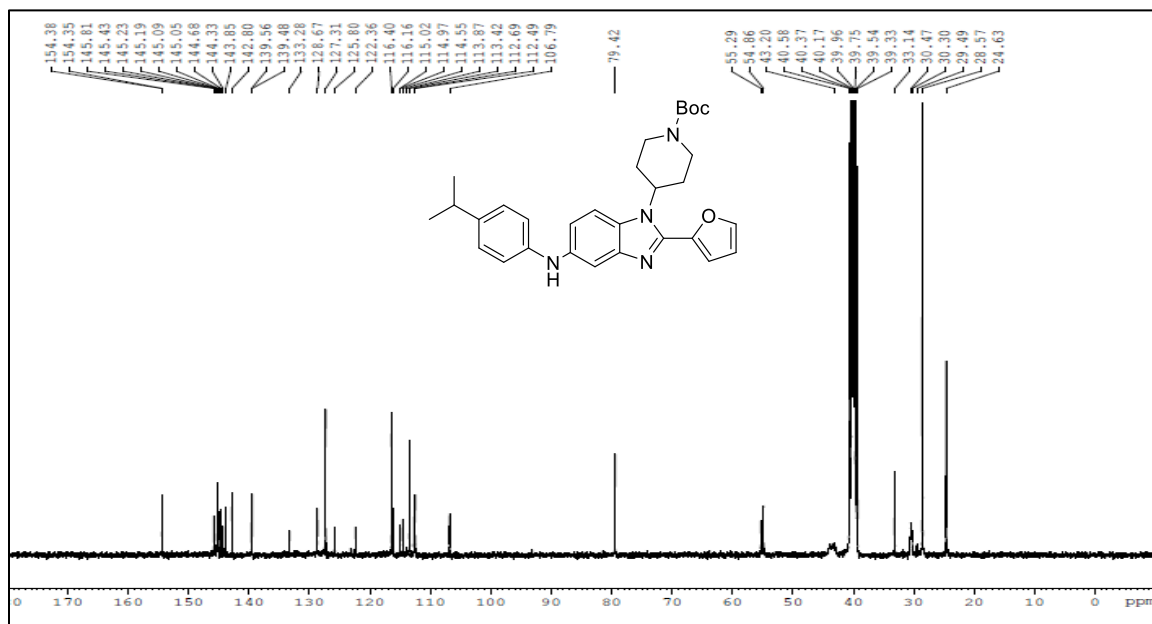
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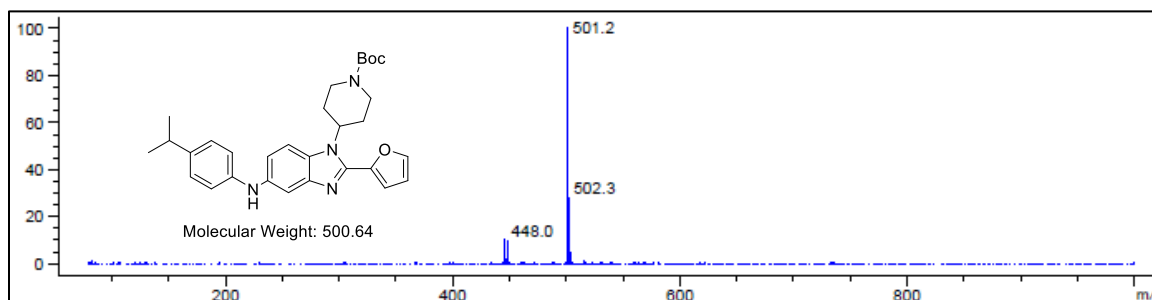
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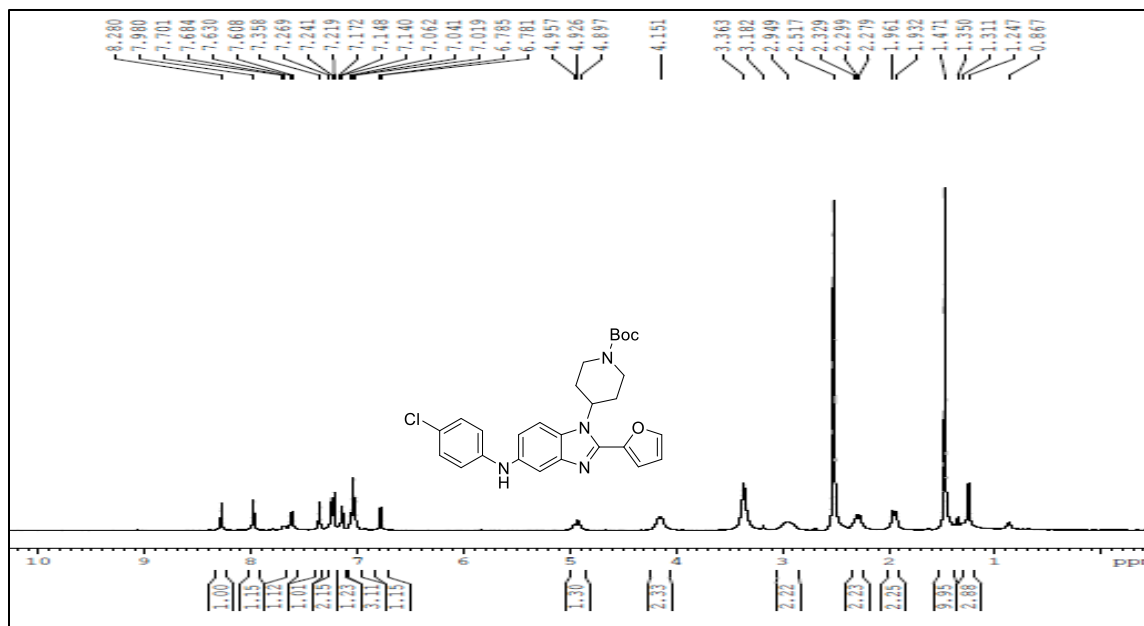
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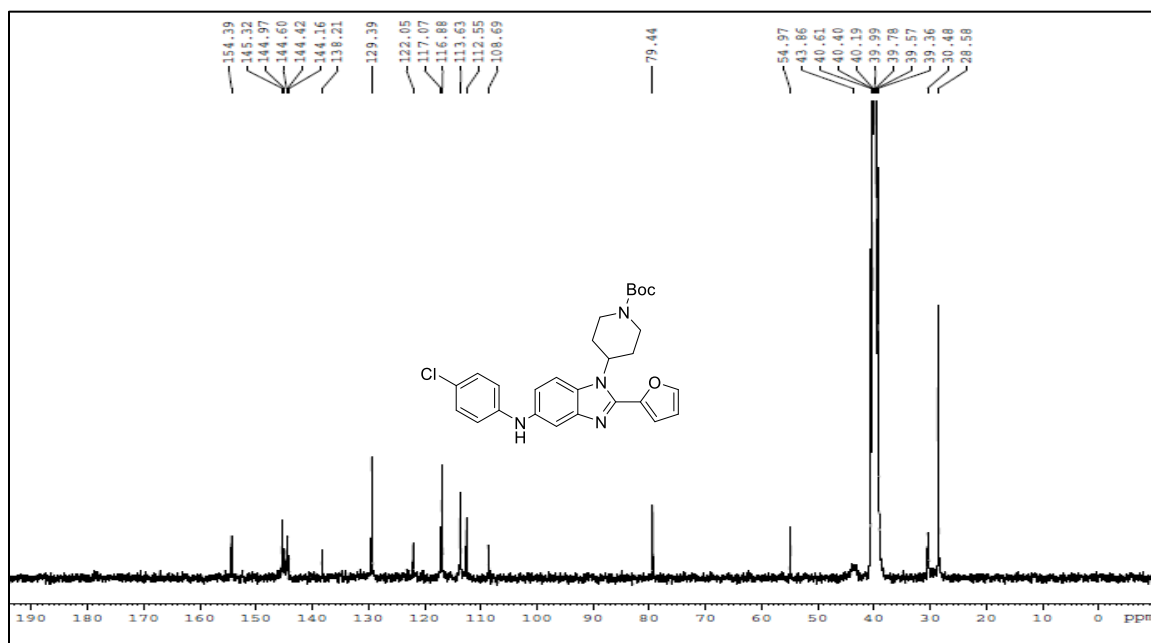
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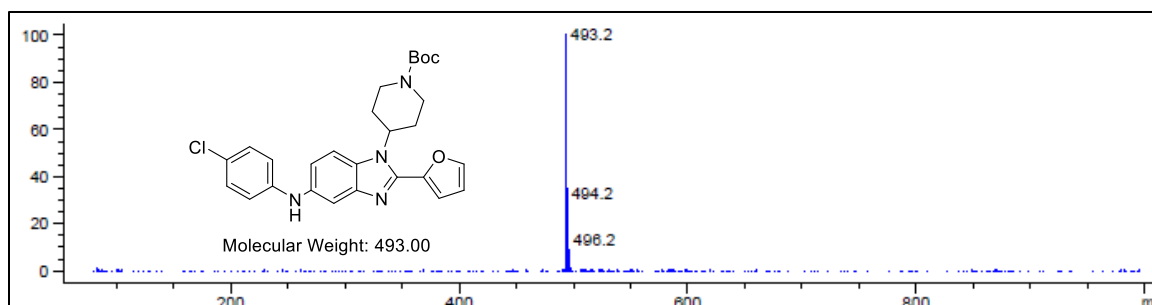
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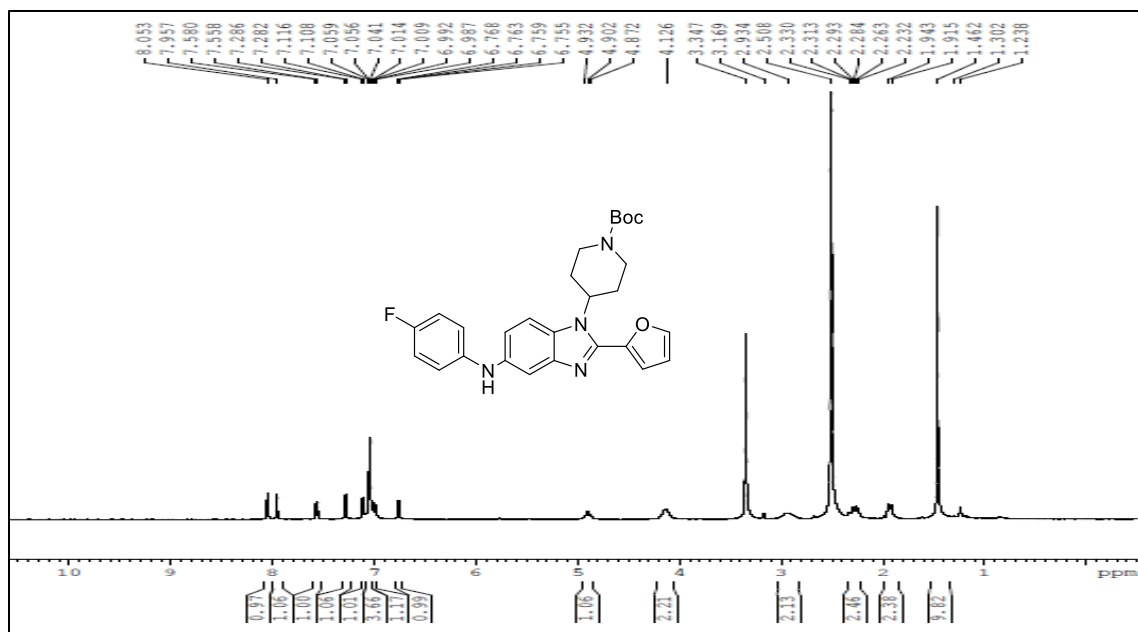
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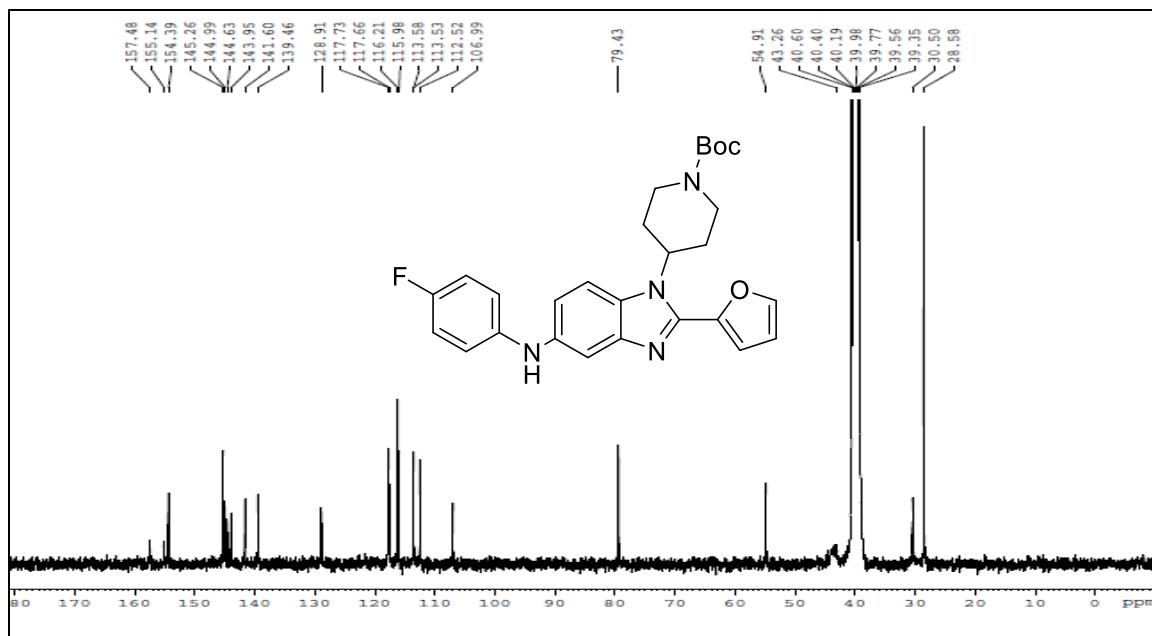
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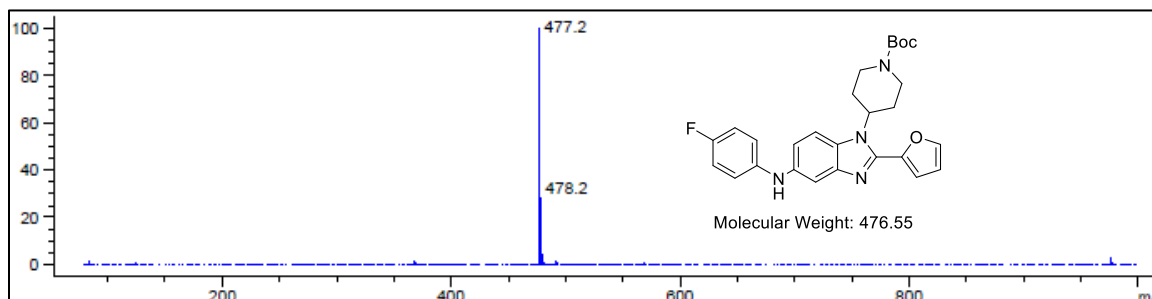
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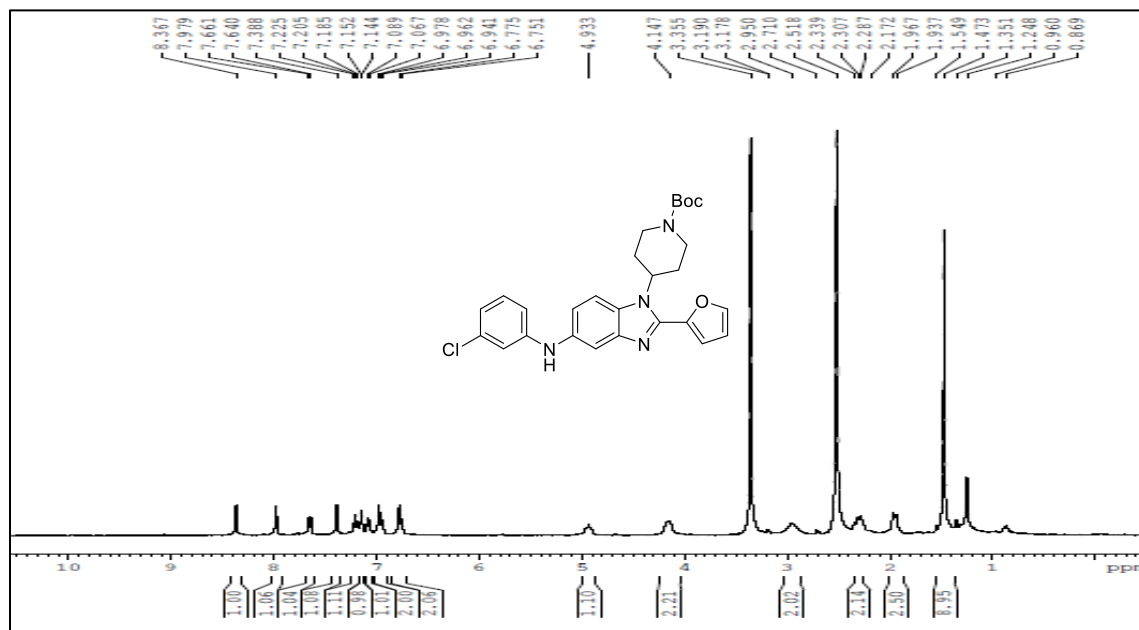
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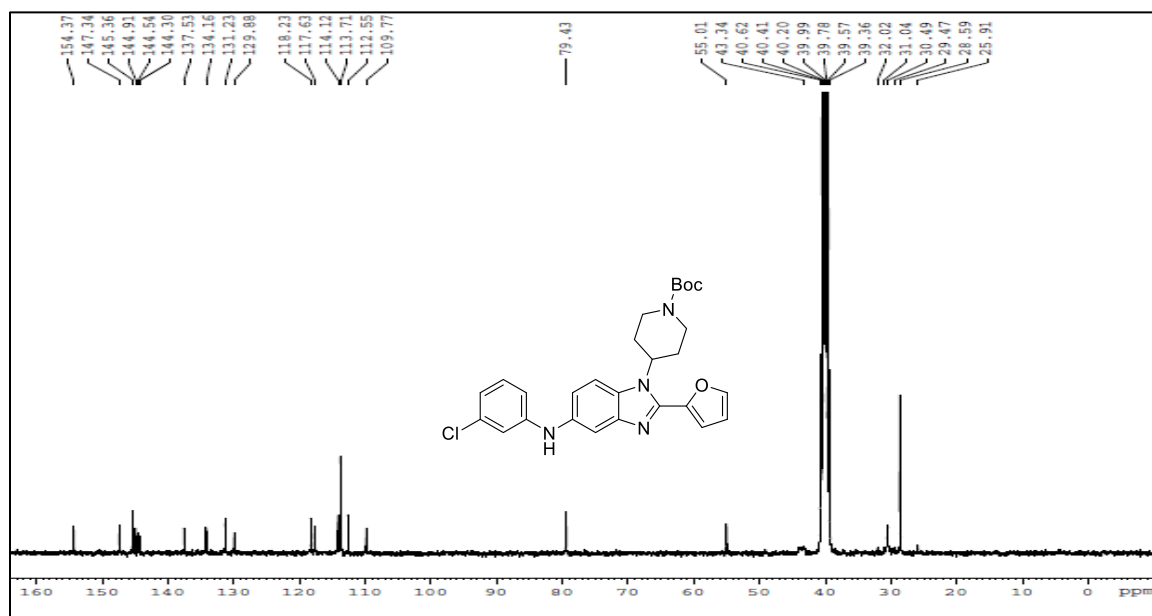
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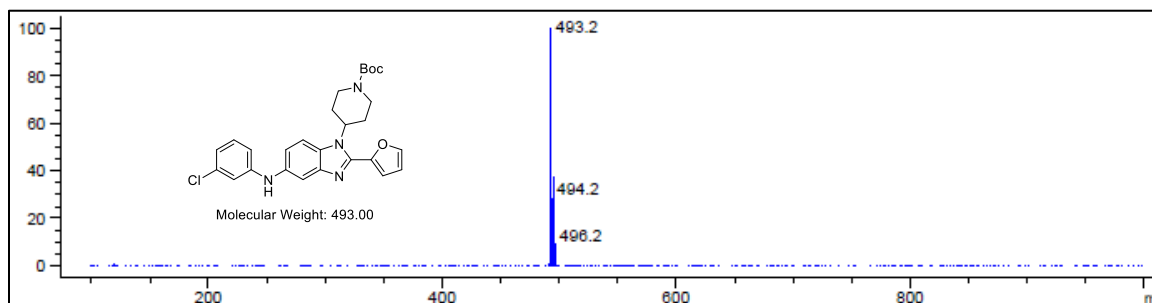
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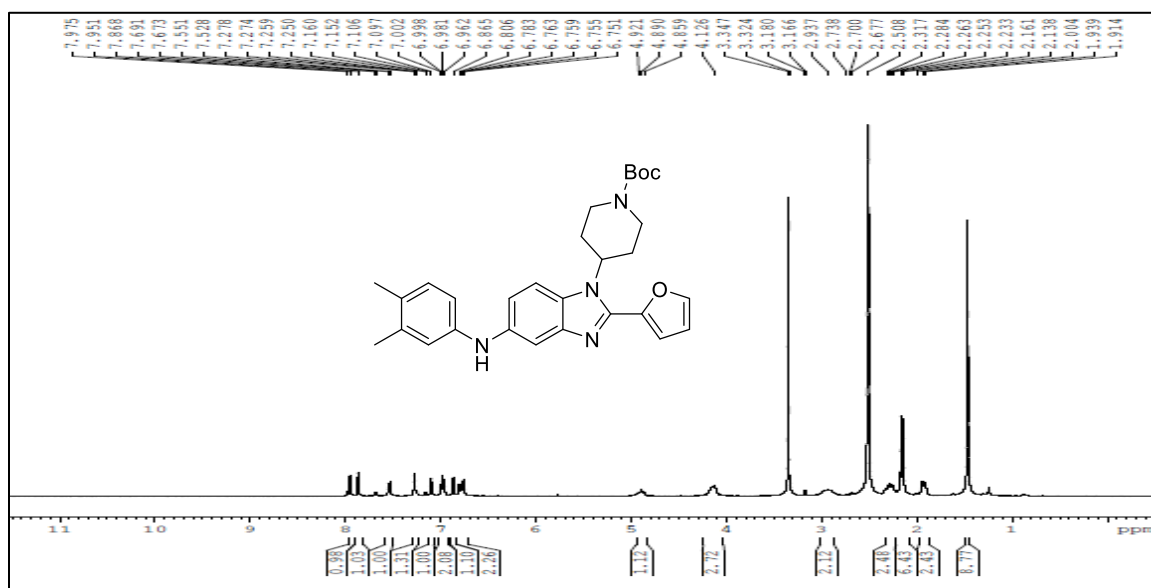
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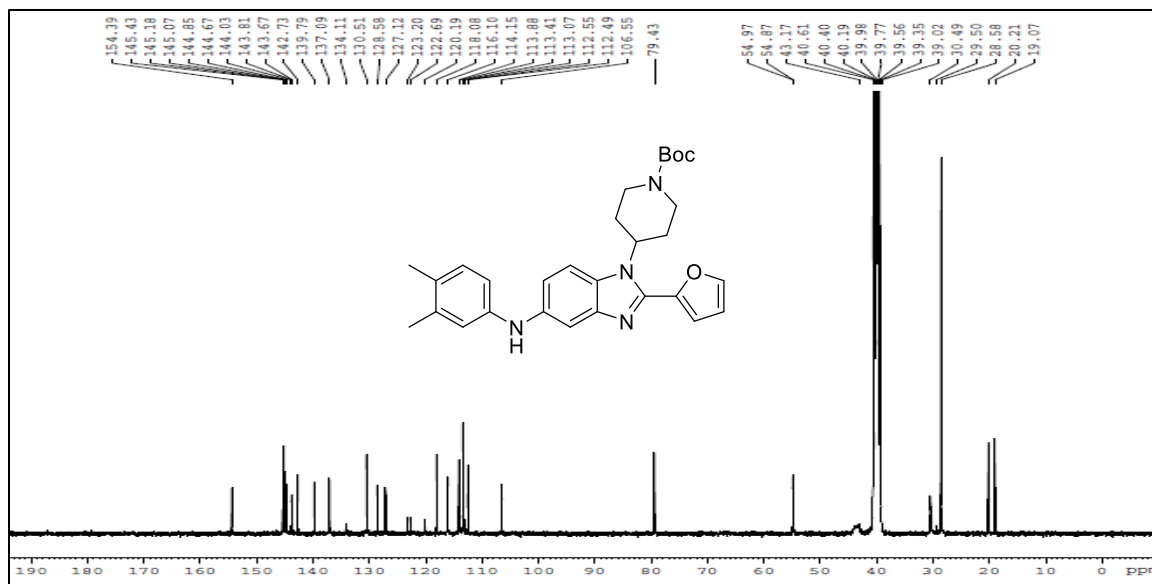
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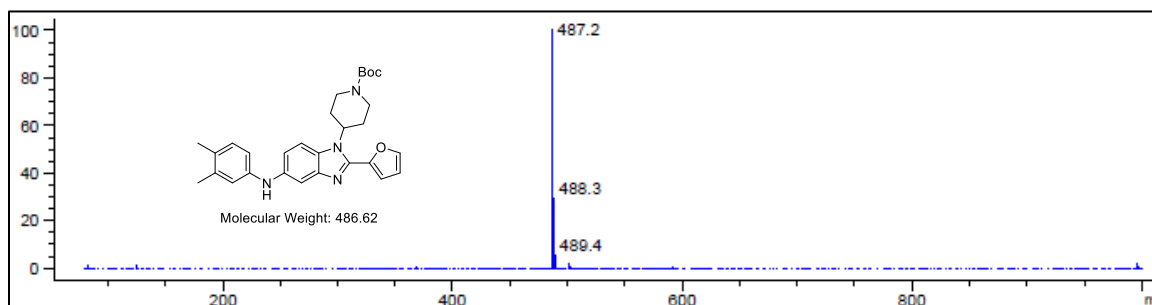
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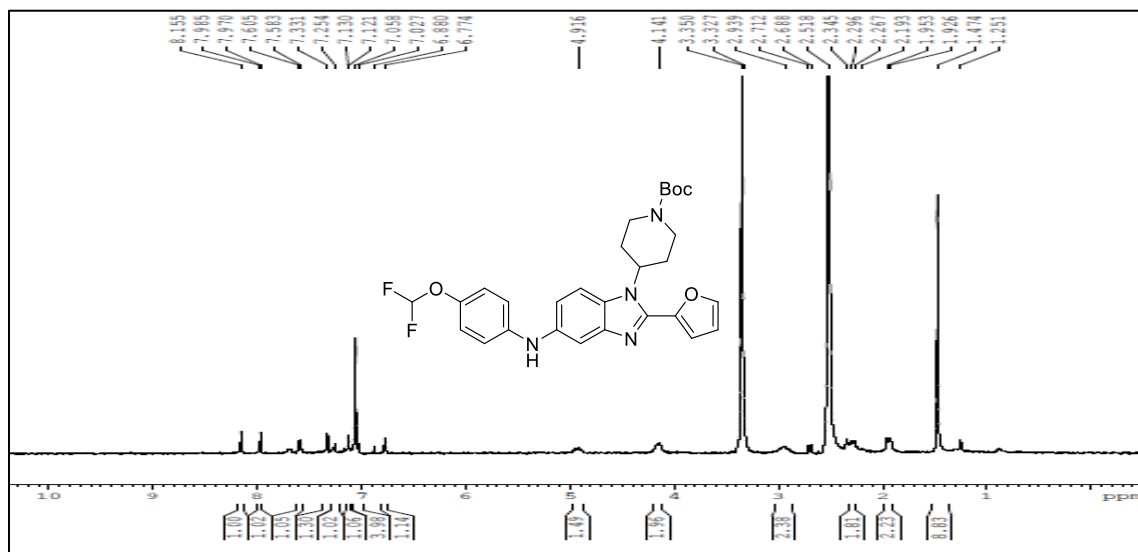
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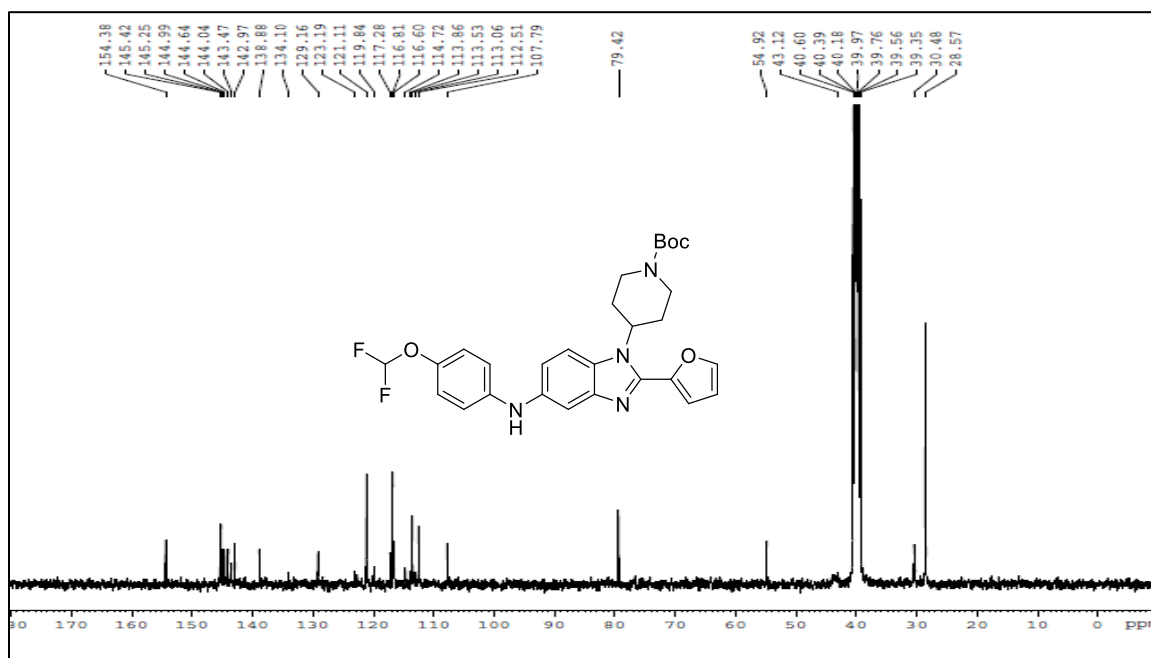
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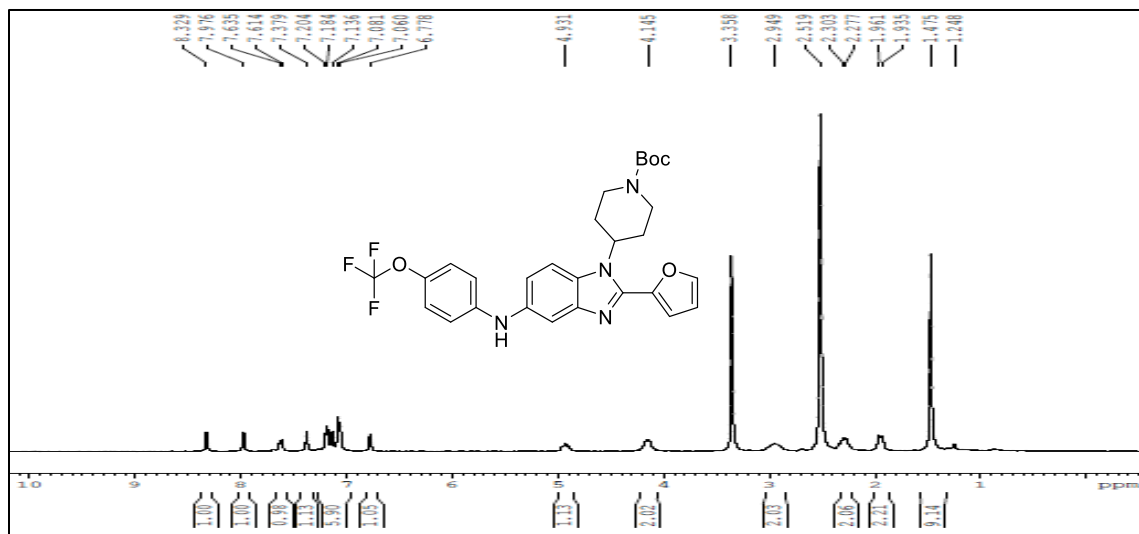
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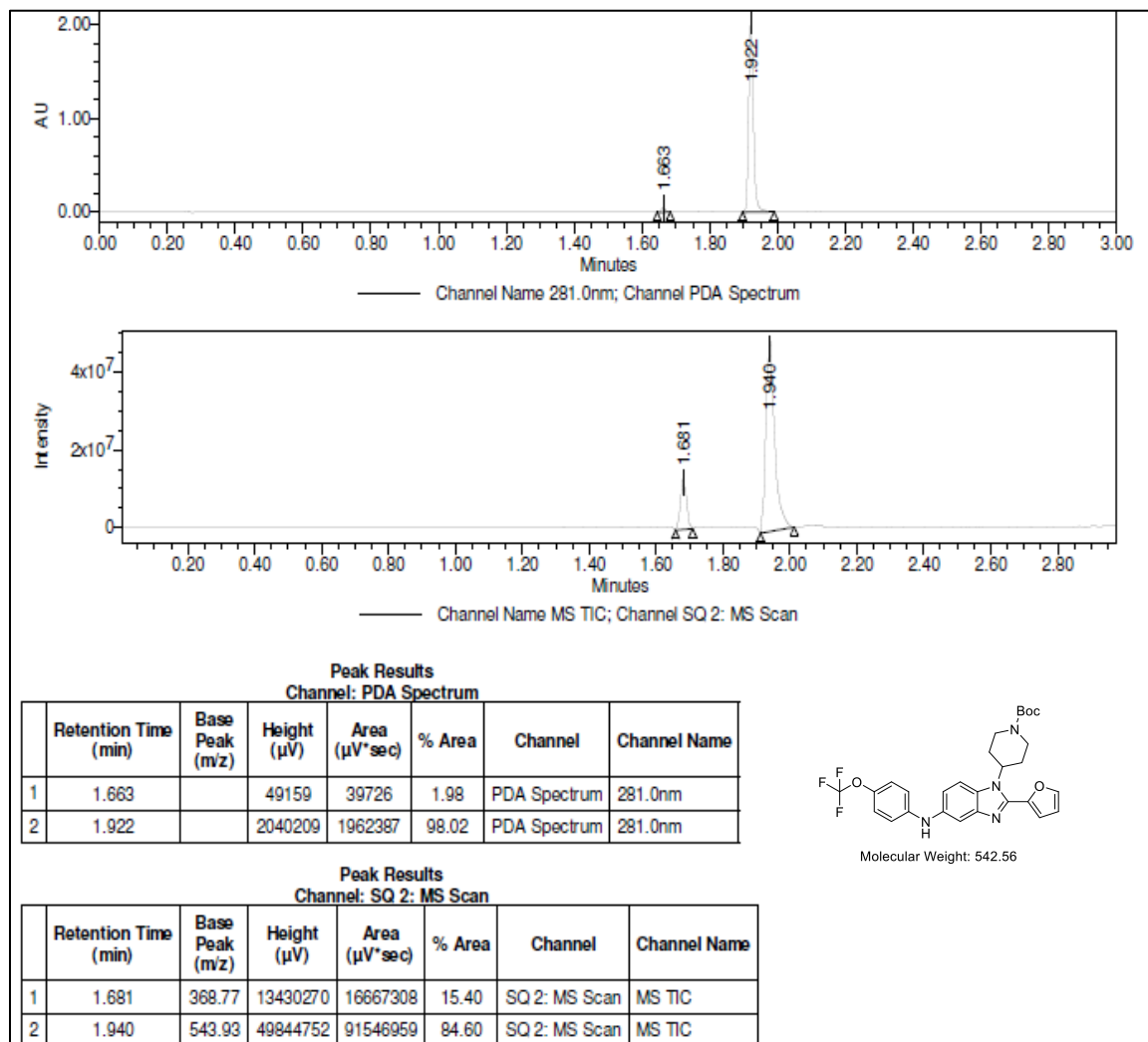
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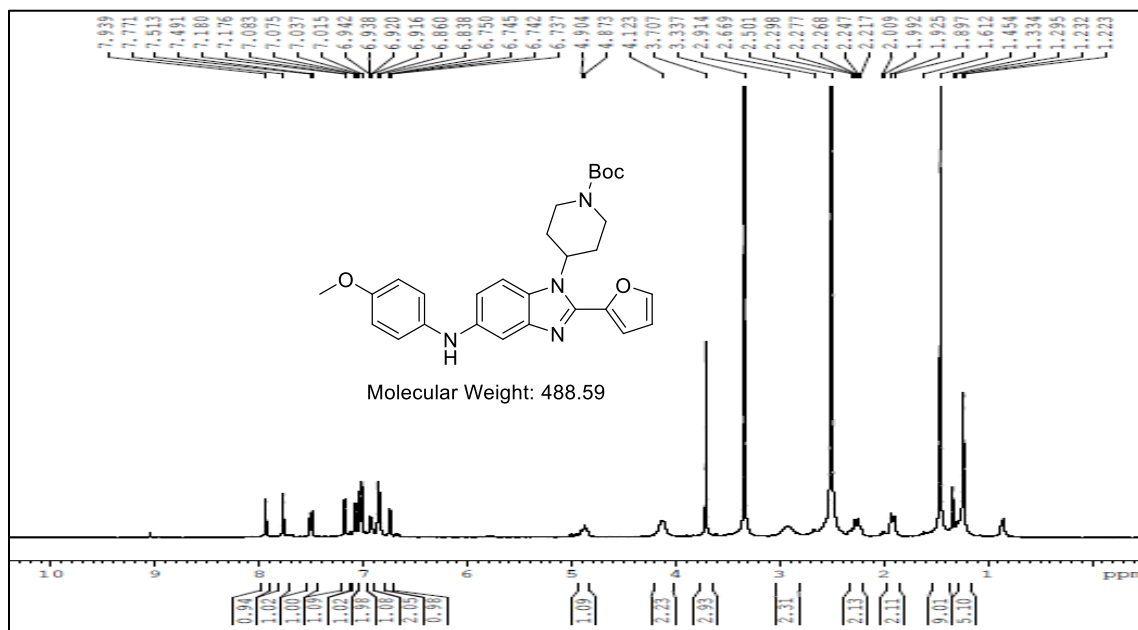
^1H NMR of tert-butyl 4-(2-(furan-2-yl)-5-((4-(trifluoromethoxy)phenyl)amino)-1H-benzo[d]imidazol-1-yl)piperidine-1-carboxylate. (7i).



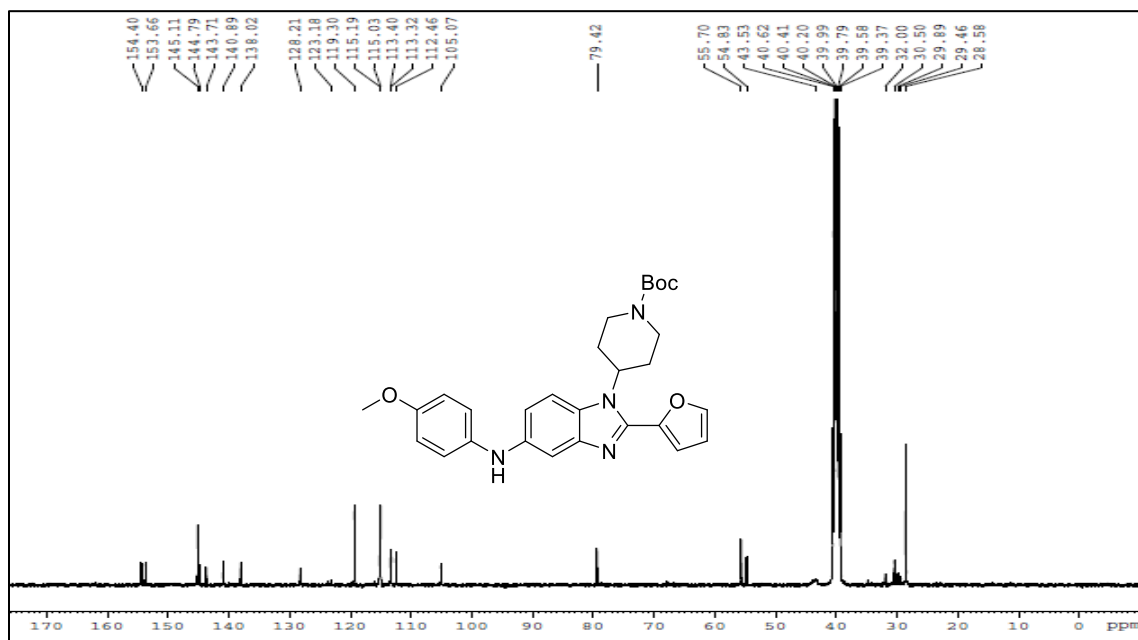
LC-MS of tert-butyl 4-(2-(furan-2-yl)-5-((4-(trifluoromethoxy)phenyl)amino)-1H-benzo[d]imidazol-1-yl)piperidine-1-carboxylate. (7i).



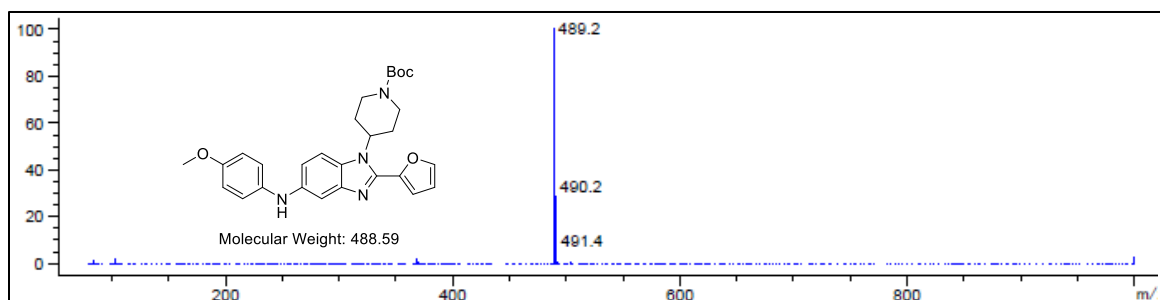
^1H NMR of tert-butyl 4-(2-(furan-2-yl)-5-((4-methoxyphenyl)amino)-1H-benzo[d]imidazol-1-yl)piperidine-1-carboxylate. (7j).



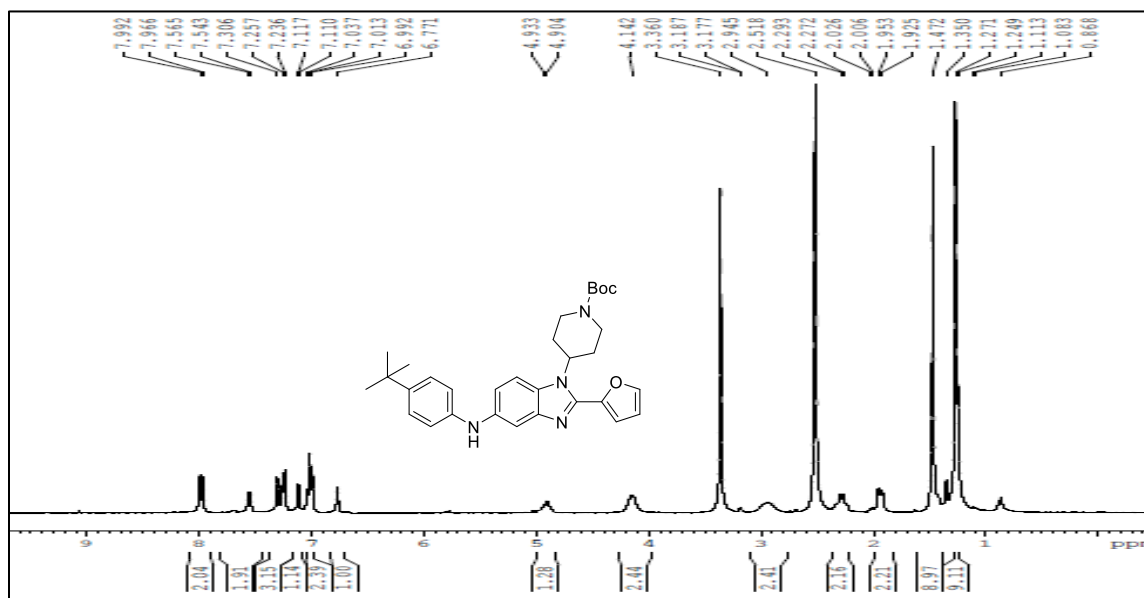
^{13}C NMR of tert-butyl 4-(2-(furan-2-yl)-5-((4-methoxyphenyl)amino)-1H-benzo[d]imidazol-1-yl)piperidine-1-carboxylate. (7j).



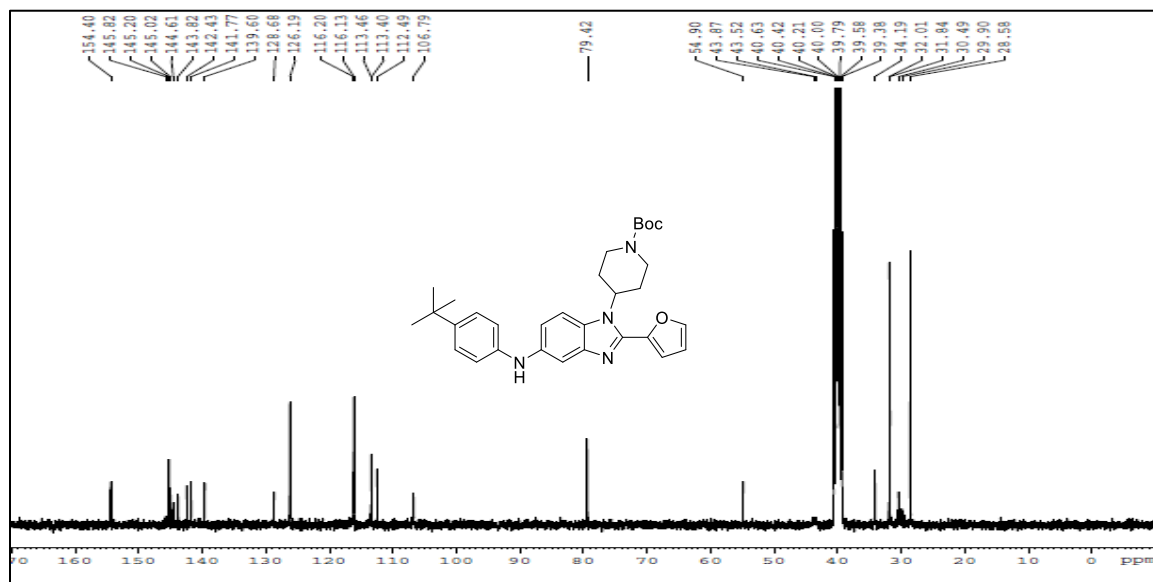
Mass analysis of tert-butyl 4-(2-(furan-2-yl)-5-((4-methoxyphenyl)amino)-1H-benzo [d]imidazol-1-yl)piperidine-1-carboxylate. (7j).



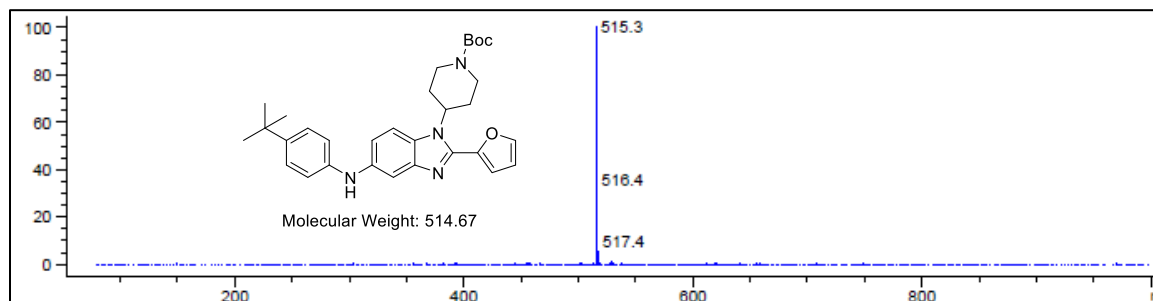
^1H NMR of tert-butyl 4-(5-((4-(tert-butyl)phenyl)amino)-2-(furan-2-yl)-1H-benzo[d]imidazol-1-yl)piperidine-1-carboxylate (7k).



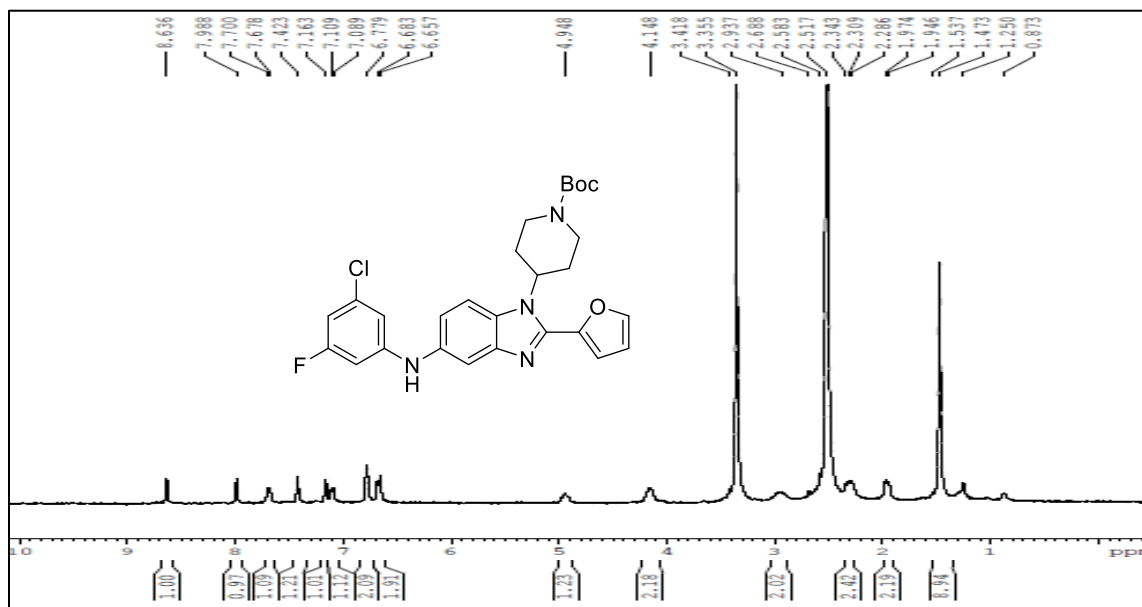
^{13}C NMR of tert-butyl 4-(5-((4-(tert-butyl)phenyl)amino)-2-(furan-2-yl)-1H-benzo[d]imidazol-1-yl)piperidine-1-carboxylate (7k).



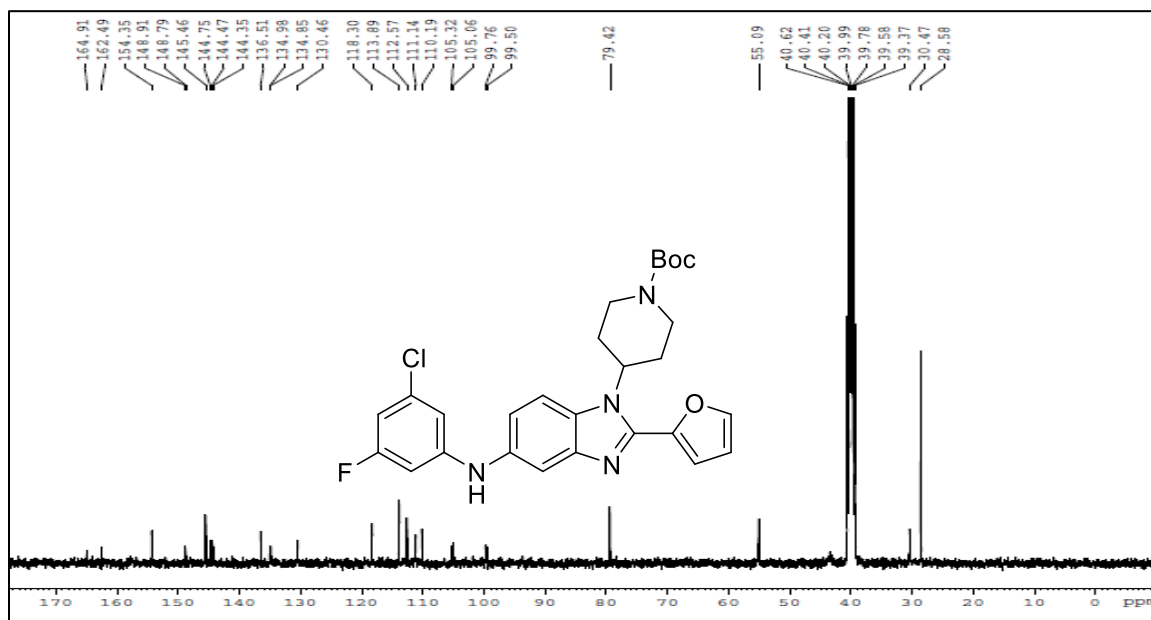
Mass of tert-butyl 4-(5-((4-(tert-butyl)phenyl)amino)-2-(furan-2-yl)-1H-benzo[d]imidazol-1-yl)piperidine-1-carboxylate (7k).



¹H NMR of tert-butyl 4-(5-((3-chloro-5-fluorophenyl)amino)-2-(furan-2-yl)-1H-benzo[d]imidazol-1-yl)piperidine-1-carboxylate (71).



¹³C NMR of tert-butyl 4-(5-((3-chloro-5-fluorophenyl)amino)-2-(furan-2-yl)-1H-benzo[d]imidazol-1-yl)piperidine-1-carboxylate (71).



Mass of tert-butyl 4-(5-((3-chloro-5-fluorophenyl)amino)-2-(furan-2-yl)-1H-benzo[d]imidazol-1-yl)piperidine-1-carboxylate (6l).

