

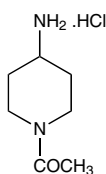
# Non-Chiral Piperidines

Six membered heterocyclic systems such as piperidines are important core structures in organic chemistry and the building blocks in the synthesis of pharmaceuticals and fine chemicals. The piperidine ring system is frequently found in many common pharmaceuticals, such as antidepressants (Paroxetine), antipsychotics (Risperidone, Thioridazine, Haloperidol), and psychostimulants (Methylphenidate). A number of new piperidine derivatives are now available through Alfa Aesar. Many have already been extensively cited in scientific literatures as in the following examples.

Various groups have employed the BOC protected piperidine H30779 in the multi-step synthesis of more complex molecules, either as potential anti-HIV therapeutic agents<sup>1</sup>, as potential therapeutics for the treatment of Alzheimer's disease and schizophrenia<sup>2</sup> or in reducing blood pressure and improving insulin resistance in pre-diabetic patients.<sup>3</sup> Alternatively, H30779 was reacted with a naphthalene aldehyde under reductive amination conditions, followed by deprotection and acylation, to provide a secondary amine for the study of analogues of naphthalene-derived human CCR8 antagonists.<sup>4</sup>

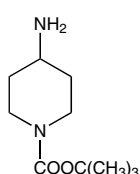
H32261 has been used in the synthesis of cytotoxic antibiotic analogues<sup>5</sup>, and also in the preparation of new routes for the preparation of 3-quinolinecarbonitrile derivatives, that exhibit potent dual inhibition of Src and Abl kinases.<sup>6</sup> Various patents and scientific articles have described the use of H52571 in the synthesis pharmaceutically active products, such as novel heterocyclic compounds as analgesics<sup>7</sup>, as useful therapeutic agents for treating anthrax poisoning<sup>8</sup> or as potentiators of existing antibacterial agents<sup>9</sup>.

Alfa Aesar has extended its comprehensive range of heterocyclic compounds with the following piperidines.



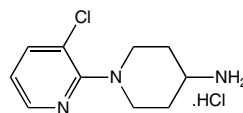
**H30389**

1-Acetyl-4-aminopiperidine hydrochloride, 97%  
[214147-48-5]



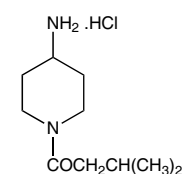
**H30779**

4-Amino-1-Boc-piperidine, 97%  
[87120-72-7]



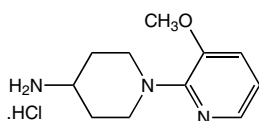
**H51927**

4-Amino-1-(3-chloro-2-pyridyl) piperidine hydrochloride, 97%  
[77145-35-8]



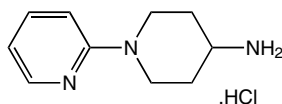
**H51684**

4-Amino-1-isovaleryl piperidine hydrochloride, 99%



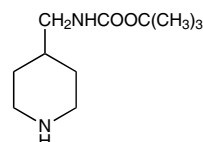
**H51176**

4-Amino-1-(3-methoxy-2-pyridyl) piperidine hydrochloride



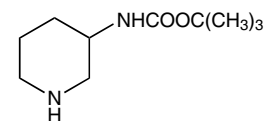
**H51108**

4-Amino-1-(2-pyridyl)- piperidine hydrochloride, 97%  
[77145-39-2]



**H52725**

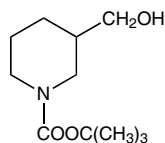
4-(Boc-aminomethyl)- piperidine, 97%  
[135632-53-0]



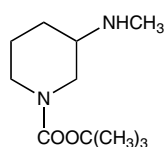
**H52788**

3-(Boc-amino)piperidine, 97%  
[172603-05-3]

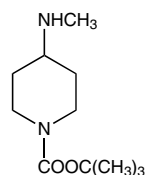
# Non-Chiral Piperidines



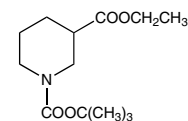
**H52784**  
(±)-1-Boc-3-(hydroxymethyl)  
piperidine, 97%  
[116574-71-1]



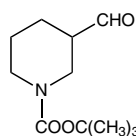
**H52773**  
1-Boc-3-(methylamino)piperi-  
dine, 97%  
[392331-89-4]



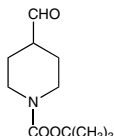
**H52576**  
1-Boc-4-(methylamino)-  
piperidine, 97%  
[147539-41-1]



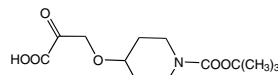
**H32704**  
1-Boc-nipecotic acid ethyl  
ester, 97%  
[130250-54-3]



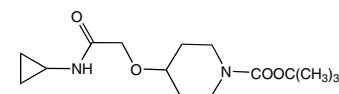
**H52571**  
1-Boc-piperidine-3-  
carboxaldehyde, 97%  
[118156-93-7]



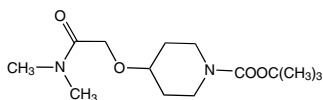
**H52813**  
1-Boc-piperidine-4-  
carboxaldehyde, 97%  
[137076-22-3]



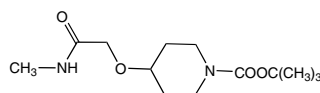
**H32102**  
(1-Boc-4-piperidinyloxy)acetic  
acid, 95%



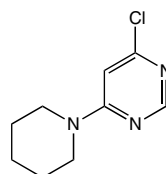
**H32069**  
2-(1-Boc-4-piperidinyloxy)-N-  
cyclopropylacetamide, 96%



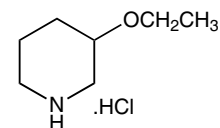
**H32708**  
2-(1-Boc-4-piperidinyloxy)-N,N-  
dimethylacetamide, 96%



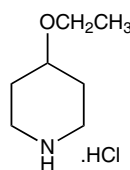
**H32990**  
2-(1-Boc-4-piperidinyloxy)-N-  
methylacetamide, 96%



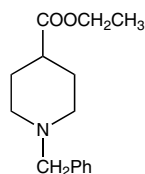
**H32973**  
4-Chloro-6-(1-piperidinyl)  
pyrimidine, 98%  
[1722-14-1]



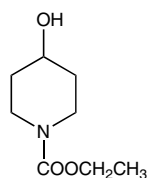
**H51152**  
3-Ethoxypiperidine  
hydrochloride



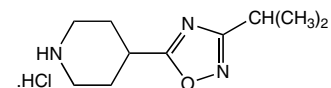
**H51028**  
4-Ethoxypiperidine  
hydrochloride



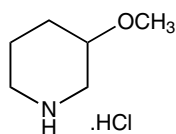
**H52374**  
Ethyl 1-benzylpiperidine-4-  
carboxylate, 97+%  
[24228-40-8]



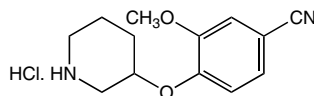
**H31388**  
Ethyl 4-hydroxypiperidine-  
1-carboxylate, 98%  
[65214-82-6]



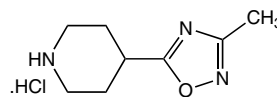
**H51025**  
4-(3-Isopropyl-1,2,4-  
oxadiazol-5-yl)piperidine  
hydrochloride  
[733751-26-3]



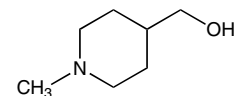
**H51138**  
3-Methoxypiperidine  
hydrochloride  
[688809-94-1]



**H51677**  
3-Methoxy-4-(3-piperidinyloxy)  
benzotrile hydrochloride,  
97%

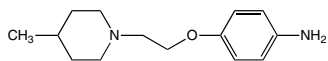


**H51706**  
4-(3-Methyl-1,2,4-oxadiazol-  
5-yl)piperidine hydrochloride,  
98%



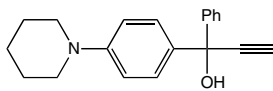
**H32261**  
1-Methylpiperidine-4-  
methanol, 97%  
[20691-89-8]

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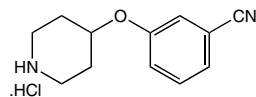
## H52351

4-(1-Methyl-4-piperidinylmethoxy)aniline, 96%  
[902454-26-6]



## H53435

1-Phenyl-1-[4-(1-piperidinyl)phenyl]-2-propyn-1-ol, 97%  
[214746-69-7]



## H51143

3-(4-Piperidinyl)oxybenzonitrile hydrochloride, 97%  
[950649-07-7]

<sup>1</sup>C. A. Willoughby, *et al.*, *Bioorg. & Med. Chem. Lett.*, 2003, **13**, 427.

<sup>2</sup>A. G. Sams, *et al.*, *J. Med. Chem.*, 2010, **53**, 6386.

<sup>3</sup>S-K Anandan, *et al.*, *Bioorg. & Med. Chem. Lett.*, 2011, **21**, 983.

<sup>4</sup>T. J. Jenkins, *et al.*, *J. Med. Chem.*, 2007, **50**, 566.

<sup>5</sup>L. F. Tietze, & F. Major, *Euro. J. Org. Chem.*, 2006, **10**, 2314.

<sup>6</sup>D. H. Boschelli, Y. D. Wang, S. Johnson, B. Wu, F. Ye, A. C. B. Sosa, J. M. Golas, & F. Boschelli, *J. Med. Chem.*, 2004, **47**, 1599.

<sup>7</sup>Sepracor Inc. Patent: US6645980 B1, 2003.

<sup>8</sup>PanThera Biopharma, LLC Patent: US2010/286125 A1, 2010.

<sup>9</sup>A. Thorarensen, A. L. Presley-Bodnar, K. R. Marotti, T. P. Boyle, C. L. Heckaman, M. J. Bohanon, P. K. Tomich, G. E. Zurenko, M. T. Sweeney, & B. H. Yagi, *Bioorg. & Med. Chem. Lett.*, 2001, **11**, 1903.