

Imidazoles

Imidazoles are an important group of the azole family of heterocycles frequently found in pharmaceuticals, drug candidates, ligands for transition metal catalysts, and other molecular functional materials. Owing to their wide application in academia and industry, new methods and strategies for the generation of functionalized imidazole derivatives are in demand.¹

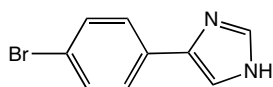
Many of the compounds listed below have been extensively cited in scientific literature. 2-Chloroimidazole (H51863), was used in the synthesis of a new class of antifungal agents.² Furthermore, it has also been employed in Suzuki-Miyaura coupling reactions.³ A series of Pd(II) complexes with bisimidazole ligands, including 2-Iodo-1-methylimidazole (H51862), were prepared and proved to be effective catalysts for the Heck reaction, under phosphine-free conditions using ionic liquids as solvents.⁴ The use of 1-Methylimidazole-5-carboxylic acid (H51106) has been described in many patents as starting material for more complex biologically active materials. Rahman et al. have recently reported the material in the synthesis of biaryl polyamides.⁵

A novel class of highly selective GlyT1 inhibitors with improved metabolic stability have involved the use of 4-(4-Bromophenyl)-1H-imidazole (H31581).⁶ Stanley and Hartwig have described the formal synthesis of a JNK3 inhibitor with 4-(4-Fluorophenyl)-1H-imidazole (H31503) as a key initial starting reagent.⁷ This material has also been used in the synthesis of Imidazolylpyrimidine based CXCR2 chemokine receptor antagonists.⁸

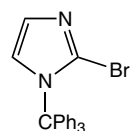
Alfa Aesar has extended its comprehensive range of heterocyclic compounds with the following imidazoles.



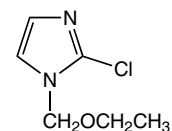
H51860
2-Bromo-1-(ethoxymethyl)
imidazole, 97%
[850429-54-8]



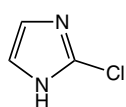
H31581
4-(4-Bromophenyl)-1H-
imidazole, 97%
[13569-96-5]



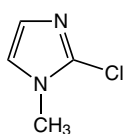
H51869
2-Bromo-1-tritylimidazole,
97%
[67478-47-1]



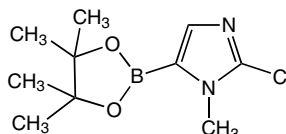
H51870
2-Chloro-1-(ethoxymethyl)
imidazole, 97%
[850429-55-9]



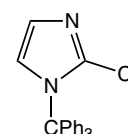
H51863
2-Chloroimidazole, 97%
[16265-04-6]



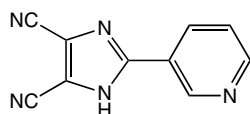
H51867
2-Chloro-1-methylimidazole,
97+%
[253453-91-7]



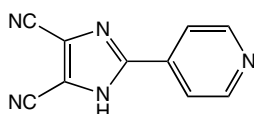
H31692
2-Chloro-1-methyl-1H-imidazole-5-
boronic acid pinacol ester, 95%



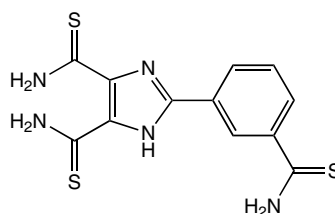
H51861
2-Chloro-1-tritylimidazole,
97% imide, 99%
[67478-48-2]



H52235
4,5-Dicyano-2-(3-pyridyl)-
imidazole, 97%

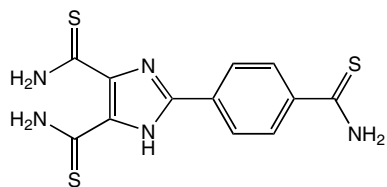


H52231
4,5-Dicyano-2-(4-pyridyl)-
imidazole, 97%



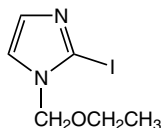
H52162
3-[4,5-Di(thiocarbamoyl)-2-
imidazolyl]thiobenzamide,
97%

Imidazoles



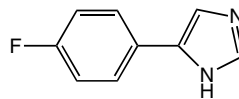
H52217

4-[4,5-Di(thiocarbamoyl)-2-imidazolyl]thiobenzamide, 97%



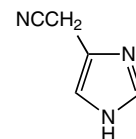
H51865

1-Ethoxymethyl-2-iodoimidazole, 97%
[146697-87-2]



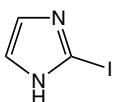
H31503

4-(4-Fluorophenyl)-1H-imidazole, 97%
[65020-70-4]



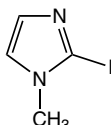
H32992

(4-Imidazolyl)acetonitrile, 97%
[18502-05-1]



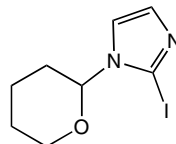
H51868

2-Iodoimidazole, 96%
[3034-62-6]



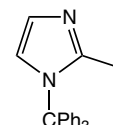
H51862

2-Iodo-1-methylimidazole, 97%
[37067-95-1]



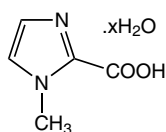
H31846

2-Iodo-1-(2-tetrahydropyranyl)-1H-imidazole, 95%



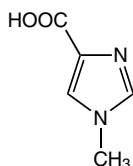
H51871

2-Iodo-1-tritylimidazole, 97%
[67478-46-0]



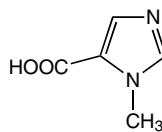
H51859

1-Methylimidazole-2-carboxylic acid hydrate, 90+%
[20485-43-2]



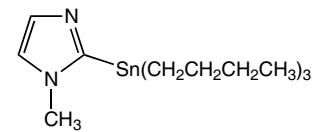
H51866

1-Methylimidazole-4-carboxylic acid
[41716-18-1]



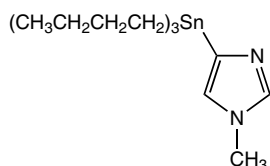
H51106

1-Methylimidazole-5-carboxylic acid, 95%
[41806-40-0]



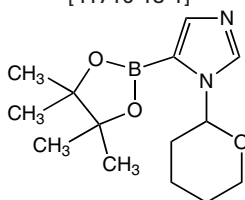
H51523

1-Methyl-2-(tri-n-butylstannyl)imidazole, 90+%
[105494-69-7]



H51405

1-Methyl-5-(tri-n-butylstannyl)imidazole, 90+%
[147716-03-8]



H32369

1-(2-Tetrahydropyranyl)-1H-imidazole-5-boronic acid pinacol ester, 95%
[1029684-37-4]

¹ J. M. Joo, B. B. Tour and D. Sames, *J. Org. Chem.*, 2010, **75**, 4911.

² B. Devadas, S. K. Freeman, M. E. Zupec, H.-F. Lu, S. R. Nagarajan et al. *J. Med. Chem.*, 1997, **40**, 2609.

³ D.-H. Lee, M. Choi, B.-W. Yu, R. Ryoo, A. Taher, S. Hossain, and M.-J. Jin, *Adv. Syn. & Cat.*, 2009, **351**, 2912.

⁴ S. B. Park and H. Alper, *Org. Lett.*, 2003, **5**, 3209.

⁵ K. Rahman, P. W. Howard, D. E. Thurston, A. P. Reszka, M. Gunaratnam, S. M. Haider, S. F. Neidle and R. Keith, *Chem. Comm.*, 2009, **27**, 4097.

⁶ D. Alberati, D. Hainzl, S. K. Jolidon, A. Eva, A. Kurt, A. Maier, E. Pinard, A. W. Thomas and D. Zimmerli, *Bioorg. & Med. Chem. Lett.*, 2006, **16**, 4311.

⁷ L. M. Stanley, and J. F. Hartwig, *J. Am. Chem. Soc.*, 2009, **131**, 8971.

⁸ K.-K. Ho, et al., *Bioorg. & Med. Chem. Lett.*, 2006, **16**, 2724.