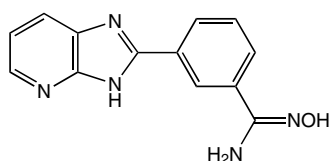


Benzimidazoles

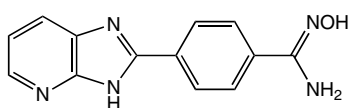
Benzimidazoles are frequently used as pesticides (fungicides) and/or as veterinary medicines (mostly anthelmintics), and many feature prominently in pharmaceuticals,¹ and as drug candidates.²

Recently, Swedish researchers have used ABA triblock copolymers having benzimidazole-tethered end blocks have been prepared and characterized with respect to their intrinsically proton conducting properties.³ In addition, workers at the Institute of Cancer Research found benzimidazole derivatives potent inhibitors of Aurora kinases.⁴ Benzimidazoles molecules closely based on the structure of H51845 are useful for bradykinin B1 receptor antagonists.⁵

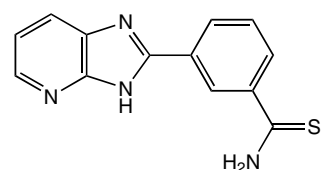
A number of routes exist for the efficient synthesis of either 2-benzimidazole⁶ and 7-aza 2-benzimidazole⁷ derivatives. Alfa Aesar has extended its comprehensive range of heterocyclic compounds with the following benzimidazoles.



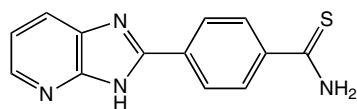
H52201
3-(7-Aza-2-benzimidazolyl)-
benzamidoxime, 97%



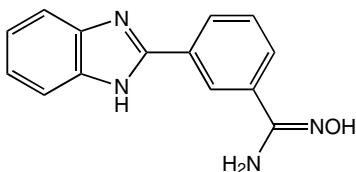
H52208
4-(7-Aza-2-benzimidazolyl)-
benzamidoxime, 97%



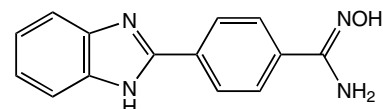
H52257
3-(7-Aza-2-benzimidazolyl)-
thiobenzamide, 97%



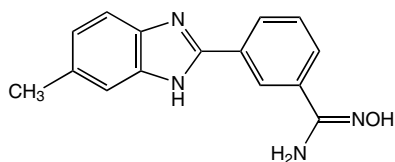
H52234
4-(7-Aza-2-benzimidazolyl)-
thiobenzamide, 97%



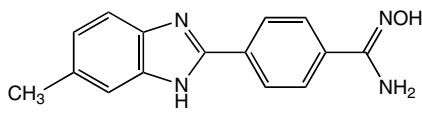
H51797
3-(2-Benzimidazolyl)-
benzamidoxime, 97%



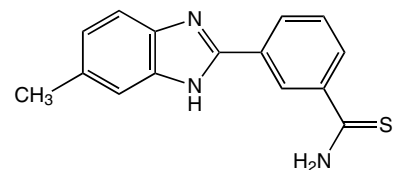
H51840
4-(2-Benzimidazolyl)-
benzamidoxime, 97%



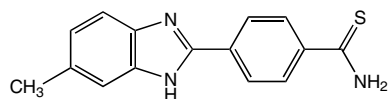
H52211
3-(6-Methyl-2-benzimidazolyl)-
benzamidoxime, 97%



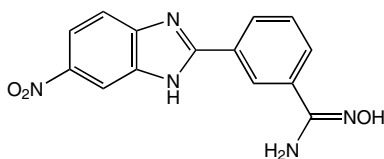
H52247
4-(6-Methyl-2-benzimidazolyl)-
benzamidoxime, 97%



H52157
3-(6-Methyl-2-benzimidazolyl)-
thiobenzamide, 97%

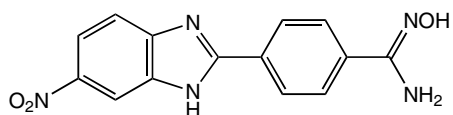


H52260
4-(6-Methyl-2-benzimidazolyl)-
thiobenzamide, 97%

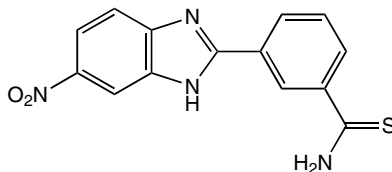


H52224
3-(6-Nitro-2-benzimidazolyl)-
benzamidoxime, 97%

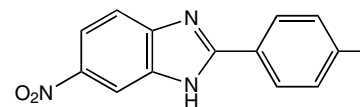
Benzimidazoles



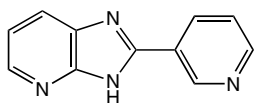
H52220
4-(6-Nitro-2-benzimidazolyl)-
benzamidoxime, 97%



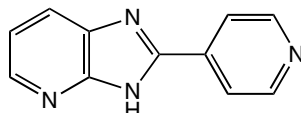
H52153
3-(6-Nitro-2-benzimidazolyl)-
thiobenzamide, 97%



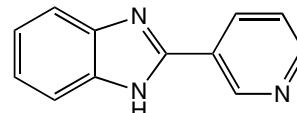
H52146
4-(6-Nitro-2-benzimidazolyl)-
thiobenzamide, 97%



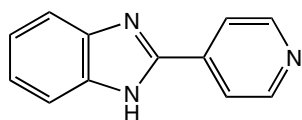
H52206
2-(3-Pyridyl)-7-azabenzimidazole, 97%



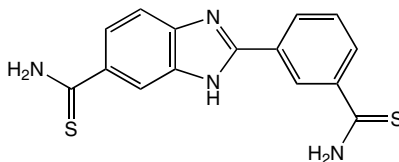
H52213
2-(4-Pyridyl)-7-azabenzimidazole, 97%



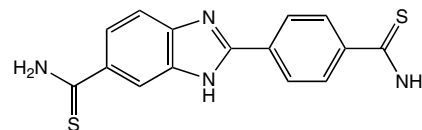
H51785
2-(3-Pyridyl)benzimidazole, 97%



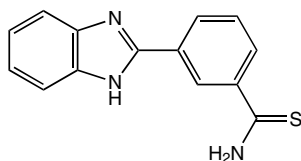
H51778
2-(4-Pyridyl)benzimidazole, 97%



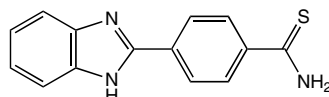
H52147
3-(6-Thiocarbamoyl-2-benzimidazolyl)
thiobenzamide, 97%



H52145
4-(6-Thiocarbamoyl-2-benzimidazolyl)
thiobenzamide, 97%



H51845
2-(3-Thiocarbamoylphenyl)-
benzimidazole, 97%



H51792
2-(4-Thiocarbamoylphenyl)-
benzimidazole, 97%

¹ AstraZeneca AB Patent: WO2007/40439 A1, 2007.

² The Institute of Cancer Research Patent: US2009/247507 A1, 2009.

³ J. C. Persson & P Jannasch, *Chem. Mater.*, 2006, **18**, 3096.

⁴ V. Bavetsias, et al., *J. Med. Chem.*, 2010, **53**, 5213.

⁵ X. M. Ye, et al., Patent: US2007/32475 A1, 2007.

⁶ J. Sluiter, J. Christoffers, *Synlett*, **2009**, 63-66; J. She, Z. Jiang, Y. Wang, *Synlett*, 2009, 2023; P. L. Beaulieu, B. Haché, E. von Moos, *Synthesis*, 2003, 1683; L-H. Du, Y-G. Wang, *Synthesis*, 2007, 675.

⁷ S. V. Ryabukhin, A. S. Plaskon, D. M. Volochnyuk, A. A. Tolmachev, *Synthesis*, 2006, 3715.; D. Yang, D. Fokas, J. Li, L. Yu, C. M. Baldino, *Synthesis*, 2005, 47.