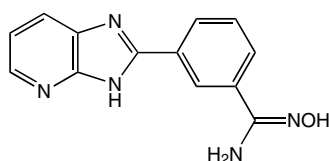


# Benzimidazoles

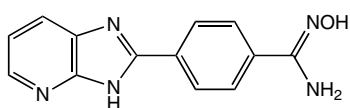
Benzimidazoles are frequently used as veterinary medicines (mostly anthelmintics), and many feature prominently in pharmaceuticals,<sup>1</sup> and as drug candidates.<sup>2</sup>

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.<sup>3</sup> In addition, workers at the Institute of Cancer Research found benzimidazole derivatives potent inhibitors of Aurora kinases.<sup>4</sup> Benzimidazoles molecules closely based on the structure of H51845 are useful for bradykinin B1 receptor antagonists.<sup>5</sup>

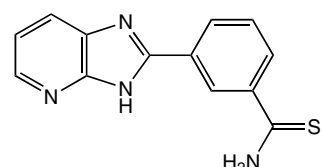
A number of routes exist for the efficient synthesis of either 2-benzimidazole<sup>6</sup> and 7-aza 2-benzimidazole<sup>7</sup> derivatives. Alfa Aesar has extended its comprehensive range of heterocyclic compounds with the following benzimidazoles.



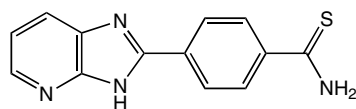
**H52201**  
3-(7-Aza-2-benzimidazolyl)-  
benzamidoxime, 97%



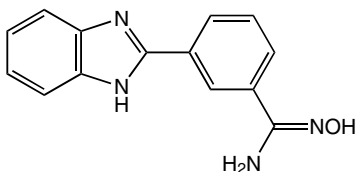
**H52208**  
4-(7-Aza-2-benzimidazolyl)-  
benzamidoxime, 97%



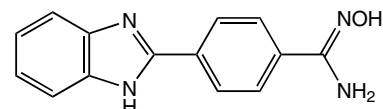
**H52257**  
3-(7-Aza-2-benzimidazolyl)-  
thiobenzamide, 97%



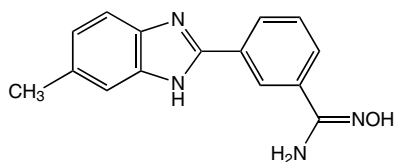
**H52234**  
4-(7-Aza-2-benzimidazolyl)-  
thiobenzamide, 97%



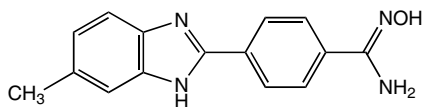
**H51797**  
3-(2-Benzimidazolyl)-  
benzamidoxime, 97%



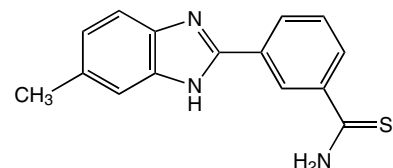
**H51840**  
4-(2-Benzimidazolyl)-  
benzamidoxime, 97%



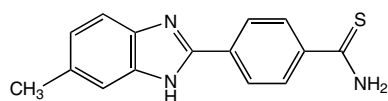
**H52211**  
3-(6-Methyl-2-benzimidazolyl)-  
benzamidoxime, 97%



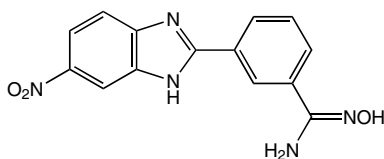
**H52247**  
4-(6-Methyl-2-benzimidazolyl)-  
benzamidoxime, 97%



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

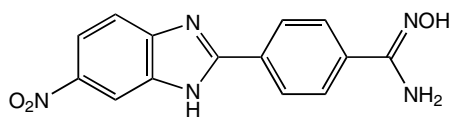


**H52260**  
4-(6-Methyl-2-benzimidazolyl)-  
thiobenzamide, 97%

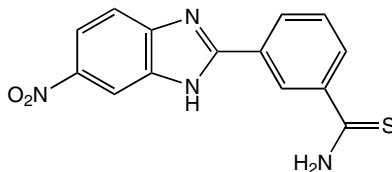


**H52224**  
3-(6-Nitro-2-benzimidazolyl)-  
benzamidoxime, 97%

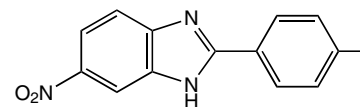
# Benzimidazoles



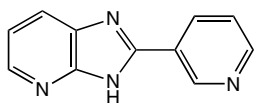
**H52220**  
4-(6-Nitro-2-benzimidazolyl)-  
benzamidoxime, 97%



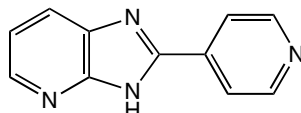
**H52153**  
3-(6-Nitro-2-benzimidazolyl)-  
thiobenzamide, 97%



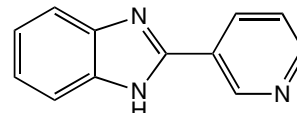
**H52146**  
4-(6-Nitro-2-benzimidazolyl)-  
thiobenzamide, 97%



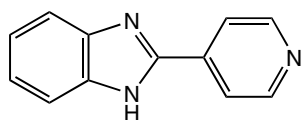
**H52206**  
2-(3-Pyridyl)-7-azabenzimidazole, 97%



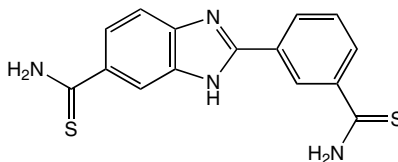
**H52213**  
2-(4-Pyridyl)-7-azabenzimidazole, 97%



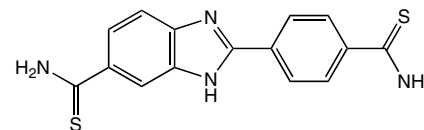
**H51785**  
2-(3-Pyridyl)benzimidazole, 97%



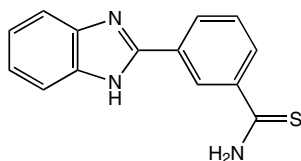
**H51778**  
2-(4-Pyridyl)benzimidazole, 97%



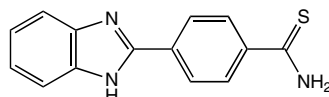
**H52147**  
3-(6-Thiocarbamoyl-2-benzimidazolyl)  
thiobenzamide, 97%



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



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



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

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

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

<sup>3</sup> J. C. Persson & P Jannasch, *Chem. Mater.*, 2006, **18**, 3096.

<sup>4</sup> V. Bavetsias, et al., *J. Med. Chem.*, 2010, **53**, 5213.

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

<sup>6</sup> 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.

<sup>7</sup> 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.