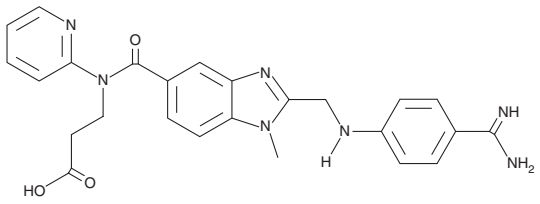
PRODUCT INFORMATION

Dabigatran

Item No. 17133

CAS Registry No.:	211914-51-1
Formal Name:	N-[[2-[[[4-(aminoiminomethyl) phenyl]amino]methyl]-1-methyl-1H-benzimidazol-5-yl]carbonyl]-N-2-pyridinyl-β-alanine
Synonym:	BIBR 953
MF:	$C_{25}H_{25}N_7O_3$
FW:	471.5
Purity:	≥95%
UV/Vis.:	λ_{max}: 224, 315 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Dabigatran is supplied as a crystalline solid. A stock solution may be made by dissolving the dabigatran in the solvent of choice, which should be purged with an inert gas. Dabigatran is soluble in the organic solvent DMSO at a concentration of approximately 0.5 mg/ml at 25°C.

Description

Dabigatran is an inhibitor of thrombin (K_i = 0.0045 µM) and an active metabolite of the thrombin inhibitor prodrug dabigatran etexilate (Item No. 17131).[1,2] It also inhibits trypsin (K_i = 0.0503 µM) but is selective for thrombin and trypsin over plasmin, Factor Xa, activated protein C, and tissue plasminogen activator (tPA; K_is = 1.695, 3.76, 20.93, and 45.36 µM, respectively).[1]

References

1. Hauel, N.H., Nar, H., Priepke, H., *et al.* Structure-based design of novel potent nonpeptide thrombin inhibitors. *J. Med. Chem.* **45(9)**, 1757-1766 (2002).
2. Eisert, W.G., Hauel, N., Stangier, J., *et al.* Dabigatran: An oral novel potent reversible nonpeptide inhibitor of thrombin. *Arterioscler. Thromb. Vasc. Biol.* **30(10)**, 1885-1889 (2010).

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