

PRODUCT INFORMATION

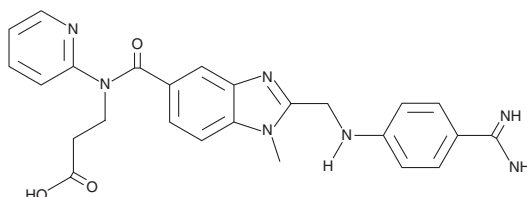


Dabigatran

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: C₂₅H₂₅N₇O₃
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 ($K_i = 0.0045 \mu\text{M}$) and an active metabolite of the thrombin inhibitor prodrug dabigatran etexilate (Item No. 17131).^{1,2} It also inhibits trypsin ($K_i = 0.0503 \mu\text{M}$) but is selective for thrombin and trypsin over plasmin, Factor Xa, activated protein C, and tissue plasminogen activator (tPA; K_i s = 1.695, 3.76, 20.93, and 45.36 μM , respectively).¹

References

1. Huel, 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., Huel, N., Stangier, J., *et al.* Dabigatran: An oral novel potent reversible nonpeptide inhibitor of thrombin. *Arterioscler. Thromb. Vasc. Biol.* **30(10)**, 1885-1889 (2010).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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