

# PRODUCT INFORMATION

## Dabigatran etexilate (mesylate)

Item No. 35248

CAS Registry No.: 872728-81-9

Formal Name: N-[[2-[[[4-[[[(hexyloxy)carbonyl]amino]iminomethyl]phenyl]amino]methyl]-1-methyl-1H-benzimidazol-5-yl]carbonyl]-N-2-pyridinyl-β-alanine, methanesulfonate ethyl ester

Synonym: BIBR 1048MS

MF: C<sub>34</sub>H<sub>41</sub>N<sub>7</sub>O<sub>5</sub> • CH<sub>3</sub>SO<sub>3</sub>H

FW: 723.8

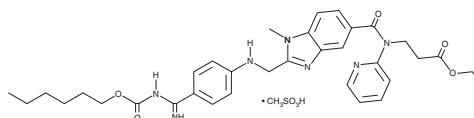
Purity: ≥98%

UV/Vis.: λ<sub>max</sub>: 226, 344 nm

Supplied as: A 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 etexilate (mesylate) is supplied as a solid. A stock solution may be made by dissolving the dabigatran etexilate (mesylate) in the solvent of choice, which should be purged with an inert gas. Dabigatran etexilate (mesylate) is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide (DMF). The solubility of dabigatran etexilate (mesylate) in ethanol is approximately 5 mg/ml and approximately 10 mg/ml in DMSO and DMF.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of dabigatran etexilate (mesylate) can be prepared by directly dissolving the solid in aqueous buffers. The solubility of dabigatran etexilate (mesylate) in PBS (pH 7.2) is approximately 0.3 mg/ml. We do not recommend storing the aqueous solution for more than one day.

### Description

Dabigatran etexilate is a prodrug form of the thrombin inhibitor dabigatran (Item No. 17133).<sup>1</sup> It inhibits thrombin-induced platelet aggregation in isolated rabbit platelets (IC<sub>50</sub> = 0.337 μM) and inhibits thrombus formation in a rat model of venous thrombosis (ED<sub>50</sub> = 7.8 μmol/kg). Formulations containing dabigatran etexilate have been used to reduce the risk of stroke and systemic embolism in patients with non-valvular atrial fibrillation and in the treatment and prevention of deep vein thrombosis (DVT) and pulmonary embolism.

### Reference

1. Yang, X.-Z., Diao, X.-J., Yang, W.-H., *et al.* Design, synthesis and antithrombotic evaluation of novel dabigatran prodrugs containing methyl ferulate. *Bioorg. Med. Chem. Lett.* **23(7)**, 2089-2092 (2013).

#### 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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