

# PRODUCT INFORMATION



## Dabigatran etexilate-d<sub>13</sub>

Item No. 18451

**Formal Name:** ethyl 3-(2-(((4-(N-(((hexyl-d<sub>13</sub>)oxy)carbonyl) carbamimidoyl)phenyl)amino)methyl)-1-methyl-N-(pyridin-2-yl)-1H-benzo[d]imidazole-5-carboxamido)propanoate

**MF:** C<sub>34</sub>H<sub>28</sub>D<sub>13</sub>N<sub>7</sub>O<sub>5</sub>

**FW:** 640.8

**Chemical Purity:** ≥98% (Dabigatran etexilate)

**Deuterium**

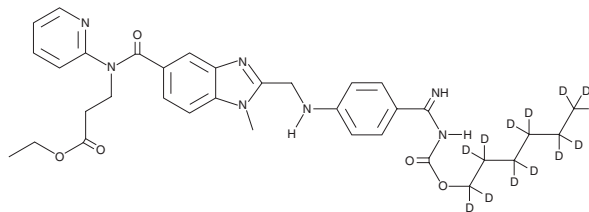
**Incorporation:** ≥99% deuterated forms (d<sub>1</sub>-d<sub>13</sub>); ≤1% d<sub>0</sub>

**UV/Vis.:** λ<sub>max</sub>: 223, 322 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 etexilate-d<sub>13</sub> is intended for use as an internal standard for the quantification of dabigatran etexilate (Item Nos. 17131 | 35248) by GC- or LC-MS. The accuracy of the sample weight in this vial is between 5% over and 2% under the amount shown on the vial. If better precision is required, the deuterated standard should be quantitated against a more precisely weighed unlabeled standard by constructing a standard curve of peak intensity ratios (deuterated versus unlabeled).

Dabigatran etexilate-d<sub>13</sub> is supplied as a crystalline solid. A stock solution may be made by dissolving the dabigatran etexilate-d<sub>13</sub> in the solvent of choice, which should be purged with an inert gas. Dabigatran etexilate-d<sub>13</sub> is soluble in the organic solvent DMSO at a concentration of approximately 0.5 mg/ml at 25°C.

### 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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