

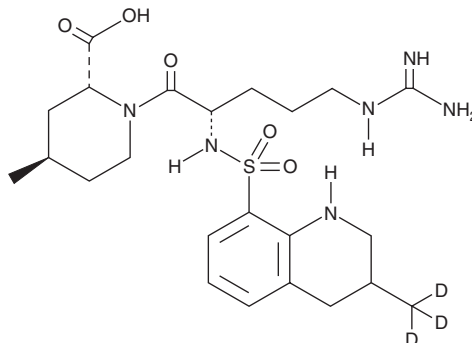
PRODUCT INFORMATION



Argatroban-d₃ (hydrochloride)

Item No. 25757

CAS Registry No.: 1356847-56-7
Formal Name: (2R,4R)-1-[(2S)-5-[(aminoiminomethyl)amino]-1-oxo-2-[[[1,2,3,4-tetrahydro-3-methyl-d₃-8-quinolinyl]sulfonyl]amino]pentyl]-4-methyl-2-piperidinecarboxylic acid, monohydrochloride
MF: C₂₃H₃₃D₃N₆O₅ • HCl
FW: 548.1
Chemical Purity: ≥98% (Argatroban)
Deuterium Incorporation: ≥99% deuterated forms (d₁-d₃); ≤1% d₀
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

Argatroban-d₃ (hydrochloride) is intended for use as an internal standard for the quantification of argatroban (Item No. 19639) 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).

Argatroban-d₃ (hydrochloride) is supplied as a solid. A stock solution may be made by dissolving the argatroban-d₃ (hydrochloride) in the solvent of choice, which should be purged with an inert gas. Argatroban-d₃ (hydrochloride) is soluble in methanol, DMSO, and dimethyl formamide.

Description

Argatroban is a reversible inhibitor of thrombin (IC₅₀s = 0.01 and 0.09 μM for the free and clot-bound forms, respectively).¹ It is selective for thrombin over factor Xa, trypsin, plasmin, and tissue plasminogen activator (K_s = 0.0045, 53, 0.19, 25.7, and 87.7 μM, respectively). It inhibits thrombin-induced platelet aggregation in washed isolated guinea pig platelets with an IC₅₀ value of 0.077 μM.² Argatroban (3.2 mg/kg, s.c.) decreases thrombus formation in a guinea pig model of iron chloride-induced arterial thrombosis. Formulations containing argatroban have been used in the prevention or treatment of thrombosis in patients with heparin-induced thrombocytopenia.

References

1. Park, H.D., Lee, S.H., Kim, T.H., *et al.* Antithrombotic effects of LB30870, a potent, orally active, selective and direct thrombin inhibitor, and pharmacokinetics of its prodrug. *Bioorg. Med. Chem. Lett.* **23**(17), 4779-4784 (2013).
2. Kato, Y., Kita, Y., Hirasawa-Taniyama, Y., *et al.* Inhibition of arterial thrombosis by a protease-activated receptor 1 antagonist, FR171113, in the guinea pig. *Eur. J. Pharmacol.* **473**(2-3), 163-169 (2003).

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.

WARRANTY AND LIMITATION OF REMEDY

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