

PRODUCT INFORMATION



Ticagrelor-d₇ Item No. 25027

CAS Registry No.: 1265911-55-4
Formal Name: (1S,2S,3R,5S)-3-[7-[[[(1R,2S)-2-(3,4-difluorophenyl)cyclopropyl]amino]-5-(propyl-1,1,2,2,3,3,3-d₇-thio)-3H-1,2,3-triazolo[4,5-d]pyrimidin-3-yl]-5-(2-hydroxyethoxy)-1,2-cyclopentanediol

MF: C₂₃H₂₁D₇F₂N₆O₄S

FW: 529.6

Chemical Purity: ≥98% (Ticagrelor)

Deuterium

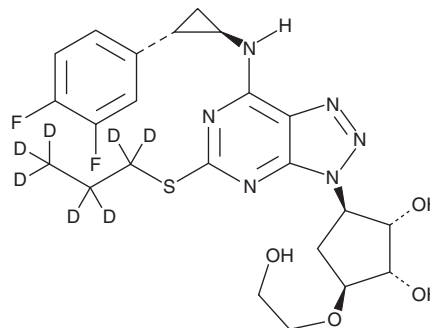
Incorporation: ≥99% deuterated forms (d₁-d₇); ≤1% d₀

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

Ticagrelor-d₇ is intended for use as an internal standard for the quantification of ticagrelor (Item No. 15425) 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).

Ticagrelor-d₇ is supplied as a solid. A stock solution may be made by dissolving the ticagrelor-d₇ in the solvent of choice, which should be purged with an inert gas. Ticagrelor-d₇ is soluble in organic solvents such as ethanol, DMSO, and dimethyl formamide. The solubility of ticagrelor-d₇ in these solvents is approximately 15, 20, and 25 mg/ml, respectively.

Description

Ticagrelor is a reversible antagonist of the platelet purinergic P2Y₁₂ receptor (K_i = 14 nM; IC₅₀ = 1.8 μM), which is the main receptor responsible for ADP-induced platelet aggregation.^{1,2} It functions by directly changing the conformation of the P2Y₁₂ receptor to inhibit ADP binding.³ Formulations containing ticagrelor have been used to reduce the rate of thrombotic cardiovascular events in patients with acute coronary syndrome.

References

1. Zech, G., Hessler, G., Evers, A., *et al.* Identification of high-affinity P2Y₁₂ antagonists based on a phenylpyrazole glutamic acid piperazine backbone. *J. Med. Chem.* **55**(20), 8615-8629 (2012).
2. Michelson, A.D. Advances in antiplatelet therapy. *Hematology Am. Soc. Hematol. Educ. Program*, 62-69 (2011).
3. Wallentin, L. P2Y₁₂ inhibitors: Differences in properties and mechanisms of action and potential consequences for clinical use. *Eur. Heart J.* **30**(16), 1964-1977 (2009).

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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