

PRODUCT INFORMATION



Ticagrelor

Item No. 15425

CAS Registry No.: 274693-27-5
Formal Name: (1S,2S,3R,5S)-3-[7-[[[(1R,2S)-2-(3,4-difluorophenyl)cyclopropyl]amino]-5-(propylthio)-3H-

Synonyms: AR-C 126532XX, AZD 6140

MF: C₂₃H₂₈F₂N₆O₄S

FW: 522.6

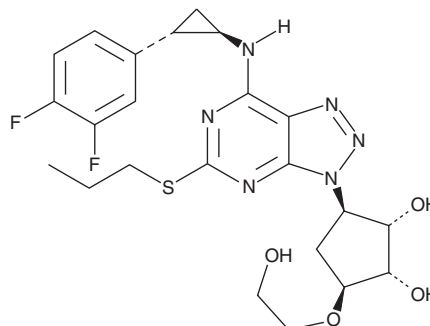
Purity: ≥95%

UV/Vis.: λ_{max}: 222, 255, 295 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

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

Ticagrelor is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, ticagrelor should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Ticagrelor has a solubility of approximately 0.15 mg/ml in a 1:5 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

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* **2011**(1), 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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