

Ticagrelor

Catalog No: tcsc0619



Available Sizes

Size: 10mg

Size: 50mg

Size: 100mg



Specifications

CAS No:

274693-27-5

Formula:

$C_{23}H_{28}F_2N_6O_4S$

Pathway:

GPCR/G Protein

Target:

P2Y Receptor

Purity / Grade:

>98%

Solubility:

DMSO : ≥ 50 mg/mL (95.68 mM)

Alternative Names:

AR-C 126532XX;AZD6140

Observed Molecular Weight:

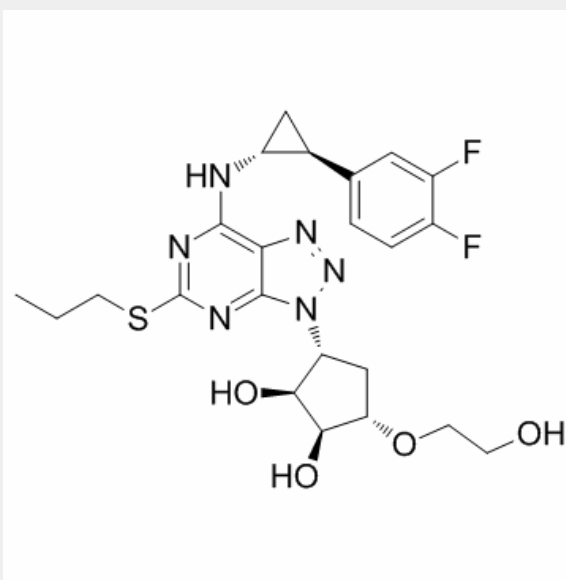
522.57

Product Description

Ticagrelor (AZD6140) is a reversible oral **P2Y₁₂** receptor antagonist for the treatment of platelet aggregation.

In Vitro: Ticagrelor promotes a greater inhibition of adenosine 5'-diphosphate (ADP)-induced Ca²⁺ release in washed platelets vs other P2Y₁₂R antagonists. This additional effect of ticagrelor beyond P2Y₁₂R antagonism is in part as a consequence of ticagrelor inhibiting the equilibrative nucleoside transporter 1 (ENT1) on platelets, leading to accumulation of extracellular adenosine and activation of Gs-coupled adenosine A_{2A} receptors^[1]. B16-F10 cells exhibit decreased interaction with platelets from ticagrelor-treated mice compared to saline-treated mice^[2].

In Vivo: In B16-F10 melanoma intravenous and intrasplenic metastasis models, mice treated with a clinical dose of ticagrelor (10 mg/kg) exhibits marked reductions in lung (84%) and liver (86%) metastases. Furthermore, ticagrelor treatment improves survival compared to saline-treated animals. A similar effect is observed in a 4T1 breast cancer model, with reductions in lung (55%) and bone marrow (87%) metastases following ticagrelor treatment^[2]. Single oral administration of ticagrelor (1-10 mg/kg) causes dose-related inhibitory effect on platelet aggregation. Ticagrelor, at the highest dose (10 mg/kg) significantly inhibits platelet aggregation at 1 h after dosing and the peak inhibition is observed at 4 h after dosing^[3].



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