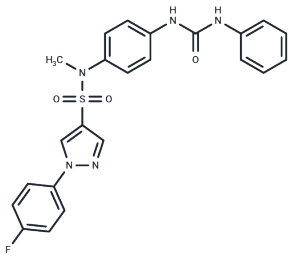
Data Sheet (Cat.No.T26917)

TargetMol

BTT-3033

Chemical Properties



CAS No. : 1259028-99-3

Formula: C23H20FN5O3S

Molecular Weight: 465.5

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	BTT-3033 is an orally active and potent α2β1 (EC50: 130 nM) inhibitor with an affinity for the α2I domain, inhibiting platelet binding to collagen I and cell proliferation. BTT-3033 induces apoptosis and can be used to study prostate cancer, inflammation, and cardiovascular disease.
Targets(IC50)	Apoptosis,Integrin
In vitro	BTT-3033 and BTT-3034 inhibited cell adhesion to rat tail collagen I with EC50 values of 130 and 160 nM, respectively, and corresponding Emax values of 97 and 86% .Neither BTT-3033 nor BTT-3034 (at EC50 concentrations) inhibited the adhesion of MG-63 cells to vitronectin, 120-kDa fibronectin or 40-kDa fibronectin, assays that measured αV, α5β1, and α4β1 integrin function, respectively [2].
In vivo	Integrin α2β1 function blocking sulfonamides BTT-3016, BTT-3033(oral administration, 10 mg/kg) and BTT-3034 have anti-inflammatory effects in PAF-stimulated air pouch model[1].

Solubility Information

Solubility	DMSO: 140 mg/mL (300.75 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.1482 mL	10.7411 mL	21.4823 mL
5 mM	0.4296 mL	2.1482 mL	4.2965 mL
10 mM	0.2148 mL	1.0741 mL	2.1482 mL
50 mM	0.043 mL	0.2148 mL	0.4296 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Liisa Nissinen, et al. Sulfonamide inhibitors of α2β1 integrin reveal the essential role of collagen receptors in in vivo models of inflammation. Pharmacol Res Perspect. 2015 Jun;3(3):e00146.
Liisa Nissinen, et al. Novel α2β1 integrin inhibitors reveal that integrin binding to collagen under shear stress conditions does not require receptor preactivation. J Biol Chem. 2012 Dec 28;287(53):44694-702.
Bingsheng Li, et al. Inhibition of neurogenic and thromboxane A 2 -induced human prostate smooth muscle contraction by the integrin α2β1 inhibitor BTT-3033 and the integrin-linked kinase inhibitor Cpd22. Prostate. 2020 Aug;80(11):831-849.
Zahra Salemi, et al. Integrin α2β1 inhibition attenuates prostate cancer cell proliferation by cell cycle arrest, promoting apoptosis and reducing epithelial-mesenchymal transition. J Cell Physiol. 2021 Jul;236(7):4954-4965.
Takashi Kanamoto, et al. Integrin α2β1 plays an important role in the interaction between human articular cartilage-derived chondrocytes and atelocollagen gel. Sci Rep. 2021 Jan 19;11(1):1757.