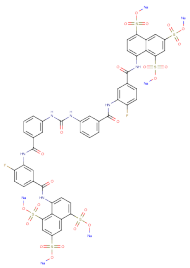
Data Sheet (Cat.No.T16291)

TargetMol

NF157

Chemical Properties



CAS No. : 104869-26-3

Formula: C49H28F2N6Na6O23S6

Molecular Weight: 1437.1

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	NF157 significantly decreases the expression of metalloproteinase (MMP)-3, MMP-13, which can be used in the treatment of osteoarthritis (OA). NF157 is a highly selective nanomolar P2Y11 antagonist (pKi: 7.35). The IC50s are 463 nM, 1811 μM, 170 μM for P2Y11 (Ki=44.3 nM), P2Y1 (Ki=187 μM), P2Y2 (Ki=28.9 μM), respectively.
Targets(IC50)	COX,P2Y Receptor
In vitro	NF157 (30 and 60 μM; 24 hours) induces a significant reduction in the degradation of type II collagen in a dose-dependent manner. NF157 (30 and 60 μM; 24 hours) almost fully restores nuclear translocation of p65 triggered by TNF-α (10 ng/mL) and significantly reduces the luciferase activity of NF-κB. NF157 (60 μM) nearly fully rescues type II collagen from degradation induced by TNF-α (10 ng/mL). NF157 shows selectivity for P2Y11 over P2Y1 (>650-fold), P2Y2 (>650-fold), P2X2 (3-fold), P2X3 (8-fold), P2X4 (>22-fold), and P2X7 (>67-fold) but no selectivity over P2X1[1][2].

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.6958 mL	3.4792 mL	6.9585 mL
5 mM	0.1392 mL	0.6958 mL	1.3917 mL
10 mM	0.0696 mL	0.3479 mL	0.6958 mL
50 mM	0.0139 mL	0.0696 mL	0.1392 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

Ullmann H, et al. Synthesis and structure-activity relationships of suramin-derived P2Y11 receptor antagonists with nanomolar potency. J Med Chem. 2005 Nov 3;48(22):7040-8.
Wang D, et al. Inhibition of P2Y11R ameliorated TNF-α-induced degradation of extracellular matrix in human chondrocytic SW1353 cells. Am J Transl Res. 2019 Apr 15;11(4):2108-2116.

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