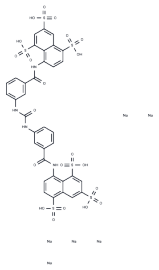
Data Sheet (Cat.No.TP2272)

TargetMol

NF023 hexasodium

Chemical Properties



CAS No. : 104869-31-0

Formula: C35H26N4Na6O21S6

Molecular Weight: 1168.92

Storage: Store at low temperature,Keep away from moisture
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	NF023 hexasodium is a selective and competitive P2X1 receptor antagonist with IC50 values of 0.21 μM, 28.9 μM, > 50 μM, and > 100 μM for human [P2X1], [P2X3], [P2X2], and [P2X4]-mediated responses, respectively.
Targets(IC50)	P2X Receptor
In vitro	NF023 demonstrates selectivity for recombinant Gi alpha-1 and recombinant Go alpha, with an EC50 value around 300 nM. It inhibits P2X1 receptors independent of voltage changes. At concentrations of 5 and 30 μM, NF023 induces a rightward shift in the concentration-response curve for ATP without altering the maximal response, indicating an inhibitory effect with a KB value of 1.190.2 μM.
In vivo	NF023 (100 μmol/kg i.v.) inhibits vasopressor responses triggered by α,β-mATP without affecting those induced by noradrenaline in pithed rats [3].

Solubility Information

Solubility	H2O: 105.3 mg/mL (90.08 mM),Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.8555 mL	4.2775 mL	8.5549 mL
5 mM	0.1711 mL	0.8555 mL	1.711 mL
10 mM	0.0855 mL	0.4277 mL	0.8555 mL
50 mM	0.0171 mL	0.0855 mL	0.1711 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

F Soto, et al. Antagonistic Properties of the Suramin Analogue NF023 at Heterologously Expressed P2X Receptors. Neuropharmacology. 1999 Jan;38(1):141-9.
M Freissmuth, et al. Suramin Analogues as Subtype-Selective G Protein Inhibitors. Mol Pharmacol. 1996 Apr;49(4): 602-11.
G Lambrecht, et al. Agonists and Antagonists Acting at P2X Receptors: Selectivity Profiles and Functional Implications. Naunyn Schmiedebergs Arch Pharmacol. 2000 Nov;362(4-5):340-50.
M Silva-Ramos, et al. Activation of Prejunctional P2x2/3 Heterotrimers by ATP Enhances the Cholinergic Tone in Obstructed Human Urinary Bladders. J Pharmacol Exp Ther. 2020 Jan;372(1):63-72.