

NF- κ B-IN-4

Chemical Properties

CAS No. :

Formula: C₁₈H₁₅N₄O

Molecular Weight: 322.34

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	NF- κ B-IN-4 (compound 17) is a potent inhibitor of the NF- κ B pathway that can cross the blood-brain barrier (BBB). It exhibits potential anti-neuroinflammatory activity with low toxicity, making it suitable for researching neuroinflammation-related diseases. NF- κ B-IN-4 can block I κ B α activation and phosphorylation, reduce NLRP3 expression, and thereby inhibit NF- κ B activation [1].
Targets(IC50)	Apoptosis,Others,NF- κ B
In vitro	NF- κ B-IN-4 (compound 17), at concentrations of 0-10 μ M over 24 hours, exhibits potent anti-inflammatory effects. At 0-5 μ M, it significantly reduces LPS-induced p-I κ B α levels, inhibits I κ B α phosphorylation, and decreases NLRP3, ASC, and caspase-1 protein expression in BV2 microglial cells. NF- κ B-IN-4 induces dose-dependent apoptosis following LPS exposure. In cytotoxicity assays, it demonstrates high anti-inflammatory activity with 97.4% cell survival and inhibition of TNF- α and IL-6 release by 60.8% and 80.2%, respectively, at concentrations of 0, 2.5, 5, and 10 μ M. Western blot analyses confirm these significant effects at 0, 1.25, 2.5, and 5 μ M. Apoptosis rates are 30.7% at 2.5 μ M and 13.0% at 5 μ M.

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.1023 mL	15.5116 mL	31.0231 mL
5 mM	0.6205 mL	3.1023 mL	6.2046 mL
10 mM	0.3102 mL	1.5512 mL	3.1023 mL
50 mM	0.062 mL	0.3102 mL	0.6205 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.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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