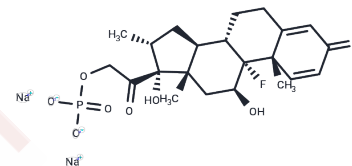


Dexamethasone Sodium Phosphate

Chemical Properties

CAS No. :	55203-24-2
Formula:	C ₂₂ H ₃₀ FO ₈ P·2Na
Molecular Weight:	516.4
Appearance:	no data available
Storage:	Powder: -20°C for 3 years In solvent: -80°C for 1 year



Biological Description

Description	Dexamethasone Sodium Phosphate (Dexadreson) , an interleukin receptor modulator, has anti-inflammatory and immunosuppressant effects. It belongs to a potent glucocorticoid class of steroid synthetic drugs.
Targets(IC50)	COX,IL Receptor
Kinase Assay	Biochemical kinase assays: Recombinant His-tagged human Aurora-A protein is expressed in Escherichia coli and is purified with HisTrap HP column. Purified recombinant human Aurora-B and Aurora-C protein are purchased. Experiments are done in quintuplicate in 96-well plates. The Aurora-A assay reaction is conducted in the presence of 20 μM ATP, 25 μM Tetra-Kemptide [RRR(GLRRASLG)4R-NH ₂], 1.0 μCi per well [γ-33P]-ATP, 0.1 ng per well Aurora-A in 50 mM Tris-HCl (pH 7.4), 15 mM Mg(OAc) ₂ , and 0.2 mM EDTA at 30°C for 40 minutes. To investigate the inhibition mode of MK-5108 for Aurora-A, the IC ₅₀ values of MK-5108 are determined in the presence of different concentrations of ATP. Then, the IC ₅₀ value is plotted as a function of ATP concentration to analyze the effect of ATP concentration on the IC ₅₀ value of MK-5108. The Aurora-B assay reaction is conducted in the presence of 15 μM ATP, 100 μM Kemptide (GLRRASLG-NH ₂), 1.0 μCi per well [γ-33P]-ATP, 5.0 ng per well Aurora-B in 50 mM Tris-HCl (pH 7.4), 15 mM Mg(OAc) ₂ , and 0.2 mM EDTA at 30 °C for 20 minuts. The Aurora-C assay reaction is conducted in the presence of 40 μM ATP, 100 μM Kemptide, 1.0 μCi per well [γ-33P]-ATP, 15 ng per well Aurora-C in 10 mM MOPS-NaOH (pH 7.4), 5 mM Mg(OAc) ₂ , 1 mM (±) DTT, and 1 mM EGTA at 30 °C for 20 minutes. After kinase reactions are terminated by adding 2.0% phosphoric acid, Tetra-Kemptide or Kemptide is trapped on the MultiScreen-PH plate. Wells are washed five times with 0.64% phosphoric acid and then monitored for radioactivity in a liquid scintillation counter.

Solubility Information

Solubility	H ₂ O: 99.6 mg/mL (192.87 mM) DMSO: Slightly soluble, (< 1 mg/ml refers to the product slightly soluble or insoluble)
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A DRUG SCREENING EXPERT

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	1.9365 mL	9.6824 mL	19.3648 mL
5 mM	0.3873 mL	1.9365 mL	3.873 mL
10 mM	0.1936 mL	0.9682 mL	1.9365 mL
50 mM	0.0387 mL	0.1936 mL	0.3873 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.

Reference

Blanco FJ, et al. J Rheumatol, 1999, 26(6), 1366-1373.

Yamamoto K, et al. FEBS Lett, 2000, 465(2-3), 103-106.

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