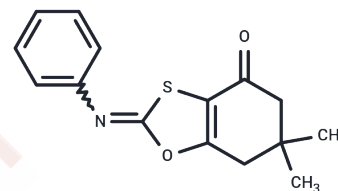


BOT-64

Chemical Properties

CAS No. : 113760-29-5
 Formula: C₁₅H₁₅NO₂S
 Molecular Weight: 273.35
 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	BOT-64 is an IKK-2 inhibitor which targets the Ser177 and/or Ser181 residues in the kinase's activation loop domain. BOT-64 is a cell-permeable benzoxathiole compound
Targets(IC50)	IκB/IKK
In vitro	BOT-64 inhibits IKKbeta-mediated IκappaBalpha phosphorylation in LPS-activated macrophages, resulting in sequential prevention of downstream events, including proteolytic degradation of IκappaBalpha, DNA binding ability, and transcriptional activity of NF-kappaB. BOT-64 inhibits LPS-inducible IKKbeta activity in the cells and catalytic activity of highly purified IKKbeta. Moreover, the effect of BOT-64 on cell-free IKKbeta was abolished by substitution of Ser-177 and Ser-181 residues in the activation loop of IKKbeta to glutamic acid residues, indicating a direct interaction site of benzoxathiole. BOT-64 attenuates NF-kappaB-regulated expression of inflammatory genes such as inducible nitric-oxide synthase, cyclooxygenase-2, tumor necrosis factor-alpha, interleukin (IL)-1beta, and IL-6 in LPS-activated or expression vector IKKbeta-transfected macrophages.

Solubility Information

Solubility	DMSO: 30 mg/mL (109.75 mM), Sonication is recommended. (< 1 mg/ml refers to the product slightly soluble or insoluble)
In vivo Formulation	10% DMSO+40% PEG300+5% Tween 80+45% Saline: 2 mg/mL (7.32 mM), Sonication is recommended. <i>Please add the solvents sequentially, clarifying the solution as much as possible before adding the next one. Dissolve by heating and/or sonication if necessary. Working solution is recommended to be prepared and used immediately. The formulation provided above is for reference purposes only. In vivo formulations may vary and should be modified based on specific experimental conditions.</i>

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	3.6583 mL	18.2916 mL	36.5831 mL
5 mM	0.7317 mL	3.6583 mL	7.3166 mL
10 mM	0.3658 mL	1.8292 mL	3.6583 mL
50 mM	0.0732 mL	0.3658 mL	0.7317 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

Kim B H , Roh E , Lee H Y , et al. Benzoxathiole derivative blocks lipopolysaccharide-induced nuclear factor-kappaB activation and nuclear factor-kappaB-regulated gene transcription through inactivating inhibitory kappaB kinase beta.[J]. Molecular Pharmacology, 2008, 73(4):1309-1318.

Inhibitor · Natural Compounds · Compound Libraries · Recombinant Proteins

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