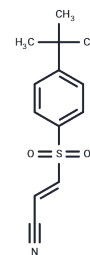


Bay 11-7085

## Chemical Properties

CAS No. :	196309-76-9
Formula:	C <sub>13</sub> H <sub>15</sub> NO <sub>2</sub> S
Molecular Weight:	249.33
Storage:	Keep away from direct sunlight, Keep away from moisture, Store at low temperature Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>



## Biological Description

Description	Bay 11-7085 can irreversibly inhibit the IκBα phosphorylation induced by TNFα (IC <sub>50</sub> : 10 μM).
Targets(IC <sub>50</sub> )	Apoptosis, Ferroptosis, NF-κB, IκB/IKK
In vitro	In athymic nude mice harboring Caov-3 cells, BAY 11-7085 enhances the inhibitory effect of paclitaxel on intraperitoneal spread and ascites formation. Additionally, BAY 11-7085 suppresses the increase in NF-κB activity associated with meningitis, improves the clinical condition of infected rats, and significantly reduces CNS complications and inflammation related to meningitis.
In vivo	When used in conjunction with paclitaxel, BAY 11-7085 enhances the inhibition of NF-κB activity and reduces the survival rate of paclitaxel-treated cells. By inhibiting NF-κB, BAY 11-7085 suppresses the expression of the adhesion molecules E-selectin, ICAM-1, and VCAM-1 induced by TNFα. BAY 11-7085 (10 μM) exhibits no cytotoxicity towards HUVEC cells. Moreover, the combined use of BAY 11-7085 and LY294002 synergistically influences apoptosis in PEL cells.
Kinase Assay	In Gel Kinase Assay: In gel kinase assay for the proteins that phosphorylate IκB-α is carried out as detailed below. Whole cell extracts are prepared from HUVEC treated with TNFα (100 units/ml) for 15 min in the presence or absence of inhibitor (20 μM, pretreatment for 1 h) as indicated. Proteins are separated on a 10% SDS gel containing 0.5 mg/ml HIS-IκB-α. Gels are washed two times in 20% propanol, 50 mM Hepes, pH 7.6, for 30 min and two times in buffer A (50 mM Hepes, pH 7.6, 5 mM 2-mercaptoethanol) for 30 min, followed by a 1-h incubation with buffer A containing 6 M urea, 1 h each in 3, 1.5, and 0.75 M urea in buffer A and 0.05% Tween 20 and 1 h in buffer A with 0.05% Tween 20. The kinase assay is carried out for 1 h at 30°C in the presence of 50 μM ATP, 5 μCi/ml [32P]ATP, 20 mM Hepes, pH 7.6, 20 mM MgCl <sub>2</sub> , 20 mM β-glycerophosphate, 20 mM p-nitrophenyl phosphate, 1 mM sodium vanadate, 2 mM dithiothreitol. The gel is washed with 5% trichloroacetic acid and 1% sodium pyrophosphate, dried, and exposed to film. A separate gel with no HIS-IκB-α is assayed as a control.
Cell Research	Human umbilical vein endothelial cells (HUVEC) are isolated and maintained in culture. Cell toxicity is assessed by morphology and by MTT assay.(Only for Reference)

## Solubility Information

Solubility	DMSO: 125 mg/mL (501.34 mM),Sonication is recommended. Ethanol: 24.9 mg/mL (99.87 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 (8.02 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	4.0107 mL	20.0537 mL	40.1075 mL
5 mM	0.8021 mL	4.0107 mL	8.0215 mL
10 mM	0.4011 mL	2.0054 mL	4.0107 mL
50 mM	0.0802 mL	0.4011 mL	0.8021 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

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