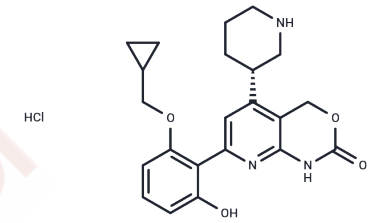
Data Sheet (Cat.No.T14508)

TargetMol

Bay 65-1942 hydrochloride

Chemical Properties



CAS No. :	600734-06-3
Formula:	C22H26ClN3O4
Molecular Weight:	431.91
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	Bay 65-1942 hydrochloride is an ATP-competitive and selective inhibitor of IKKβ.
Targets(IC50)	IκB/IKK
In vitro	Administration of Bay 65-1942 before ischemia significantly reduces left ventricular infarct size compared to vehicle-treated animals, with observed reductions at all time points (prior to ischemia 42.7±4.1%, at reperfusion 42.7±7.5%, 2 hours of reperfusion 29.4±5.2%; each group P<0.05 vs. vehicle). Compared to sham animals, vehicle-treated animals show a significant increase in the infarct-to-area at risk (AAR) ratio (70.7±3.4 vs. 5.8±3.4%, P<0.05). Bay 65-1942 pretreatment (n=3) significantly lowers CK-MB levels compared to untreated animals prior to IR (14,170 ±3,219 units, P<0.05 vs. vehicle)[1].
In vivo	AZD6244 and BAY 65-1942 demonstrate synergistic inhibition of cell viability at the dose combination (5 μM AZD6244+10 μM BAY 65-1942), which correlates with IC75 (CI?=?0.48 ±0.01). AZD6244 and BAY 65-1942 treatment induces 2- and 1.3-fold caspase 3/7 activation, respectively, compared to the DMSO-treated cells. Treatment with a combination of AZD6244 plus BAY 65-1942 leads to a 3.2-fold increase in caspase 3/7 activity[2]. Inhibitors of MEK (AZD6244) and IKK (BAY 65-1942) are used at their IC50 concentrations, as determined by a 48 hour MTS assay, which achieve sufficient inhibition of kinase activity. MYL-R cells are treated for 24 hours with AZD6244 (5 μM), BAY 65-1942 (10 μM), or a combination of these inhibitors at the same concentrations. Synergism is also indicated at the IC50 (CI?=?0.56±0.09) and IC90 (CI?=?0.46±0.02) dose combinations reported by the software (CI values are the mean of three independent experiments, ± standard deviation).

Solubility Information

Solubility	DMSO: 50 mg/mL (115.76 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: 2.5 mg/mL (5.79 mM),Sonication is recommended. *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*

In vivo Formulation	*vary and should be modified based on specific experimental conditions.*

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.3153 mL	11.5765 mL	23.153 mL
5 mM	0.4631 mL	2.3153 mL	4.6306 mL
10 mM	0.2315 mL	1.1576 mL	2.3153 mL
50 mM	0.0463 mL	0.2315 mL	0.4631 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

Inhibition of IκB kinase-β protects dopamine neurons against lipopolysaccharide-induced neurotoxicity By Zhang, Feng; Qian, Li; Flood, Patrick M.; Shi, Jing-Shan; Hong, Jau-Shyong; Gao, Hui-Ming J Pharmacol Exp Ther. 2010 June; 333(3): 822-833.

Cooper MJ, et al. Application of multiplexed kinase inhibitor beads to study kinome adaptations in drug-resistant leukemia. PLoS One. 2013 Jun 24;8(6):e66755.