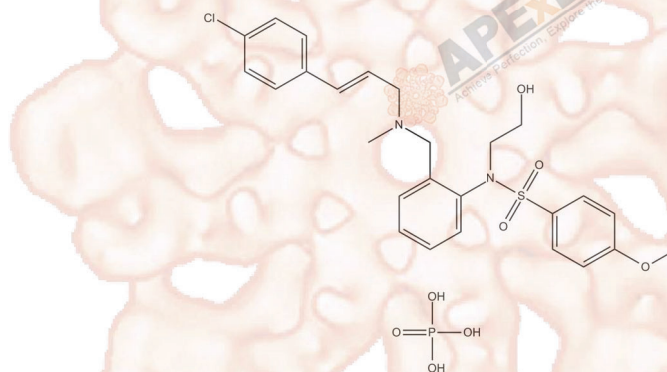


Product Data Sheet

KN-93 Phosphate

Cat. No.:	B4969
CAS No.:	1188890-41-6
Formula:	C ₂₆ H ₃₂ ClN ₂ O ₈ PS
M.Wt:	599.03
Synonyms:	
Target:	Others
Pathway:	CaM kinase II
Storage:	Store at -20°C



Solvent & Solubility

≥29.95mg/mL in DMSO

In Vitro

	Solvent	Mass Concentration	1mg	5mg	10mg
Preparing Stock Solutions		1 mM	1.6694 mL	8.3468 mL	16.6937 mL
		5 mM	0.3339 mL	1.6694 mL	3.3387 mL
		10 mM	0.1669 mL	0.8347 mL	1.6694 mL

Please refer to the solubility information to select the appropriate solvent.

Biological Activity

Shortsummary

CaM kinase II inhibitor, water soluble and cell permeable

IC₅₀ & Target

In Vitro

Cell Viability Assay

Cell Line:	Human hepatic stellate cell line LX-2
Preparation method:	Soluble in DMSO >30mg/mL. General tips for obtaining a higher concentration: Please warm the tube at 37°C for 10 minutes and/or shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.
Reacting conditions:	5, 10, 25, 50μmol/L for 24h; 10 μmol/L for 4, 8, 16, 24, 48h
Applications:	KN-93 decreased the proliferation of human hepatic stellate cells in a dose dependent manner after 24 h treatment. Incubation of 10 μmol/L KN-93

In Vivo

induced the cell growth reduction in a time-dependent manner. KN-93 reduced the expression of p53 and p21.

Animal experiment

Animal models:	adult Sprague Dawley female rats (model of PD was induced by 6-hydroxydopamine (OHDA))
Dosage form:	1µg, 2µg, or 5µg KN-93, intrastriatal injections
Applications:	The data indicated that intrastriatal injections of KN-93 were beneficial in reducing the expression of LID (levodopa-induced dyskinesia) by lowering the expression of pGluR1S845(Phosphorylated GluR1(Glutamate receptor 1) at Serine-845) via suppressing the activation of CaMKII (calcium -dependent protein kinase II) in PD rats. Decreased expression of pGluR1S845 further reduced the expression of Gad1(glutamate decarboxylase 1) and nr4a1(nuclear receptor subfamily 4, group A, member 1) in PD rats.
Other notes:	Please test the solubility of all compounds indoor, and the actual solubility may slightly differ with the theoretical value. This is caused by an experimental system error and it is normal.

Product Citations

See more customer validations on www.apexbt.com.

References

- [1]. An P, Zhu JY, et al, KN-93, a specific inhibitor of CaMKII inhibits human hepatic stellate cell proliferation in vitro. World J Gastroenterol. 2007 Mar 7;13(9):1445-8.
- [2]. Yang X, Wu N, et al, Intrastriatal injections of KN-93 ameliorates levodopa-induced dyskinesia in a rat model of Parkinson's disease. Neuropsychiatr Dis Treat. 2013;9:1213-20. doi: 10.2147/NDT.S45422.

Caution

FOR RESEARCH PURPOSES ONLY.

NOT FOR HUMAN, VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

Specific storage and handling information for each product is indicated on the product datasheet. Most APExBIO products are stable under the recommended conditions. Products are sometimes shipped at a temperature that differs from the recommended storage temperature. Shortterm storage of many products are stable in the short-term at temperatures that differ from that required for long-term storage. We ensure that the product is shipped under conditions that will maintain the quality of the reagents. Upon receipt of the product, follow the storage recommendations on the product data sheet.



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