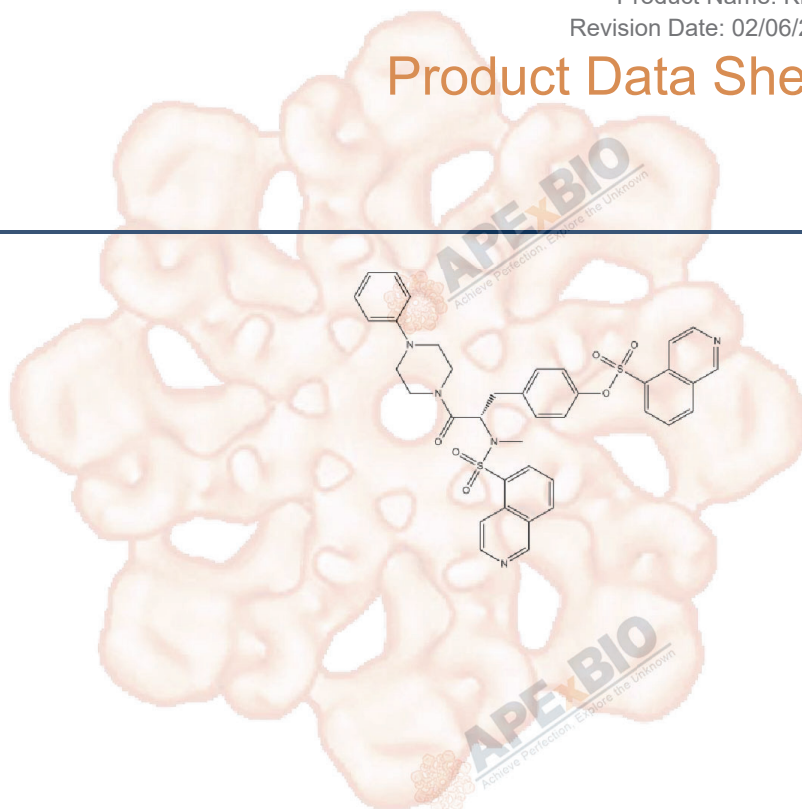


# Product Data Sheet

## KN-62

<b>Cat. No.:</b>	A8180
<b>CAS No.:</b>	127191-97-3
<b>Formula:</b>	C38H35N5O6S2
<b>M.Wt:</b>	721.9
<b>Synonyms:</b>	
<b>Target:</b>	Others
<b>Pathway:</b>	CaM kinase II
<b>Storage:</b>	Desiccate at -20°C



## Solvent & Solubility

≥36.1 mg/mL in DMSO; insoluble in H<sub>2</sub>O; ≥15.88 mg/mL in EtOH with ultrasonic

In Vitro	Preparing Stock Solutions	Mass			
		Solvent	1mg	5mg	10mg
		Concentration			
		1 mM	1.3852 mL	6.9262 mL	13.8523 mL
		5 mM	0.2770 mL	1.3852 mL	2.7705 mL
		10 mM	0.1385 mL	0.6926 mL	1.3852 mL

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

## Biological Activity

Shortsummary	CaM kinase II inhibitor	
IC <sub>50</sub> & Target	0.9 μM (Calmodulin protein kinase II)	
In Vitro	<b>Cell Viability Assay</b>	
	Cell Line:	K562 cells
	Preparation method:	The solubility of this compound in DMSO is > 36.1 mg/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:	1, 2, 5 or 10 μM; 24 or 48 hrs

	Applications:	KN-62 inhibited the cell growth of K562 cells in a dose-dependent manner. Two days after the treatment of 10 $\mu$ M KN-62, 63% K562 cells were inhibited. Flow cytometric analysis showed that KN-62 (10 $\mu$ M, 24 hrs) caused an accumulation of K562 cells in S phase. Immunoblotting studies indicated that CaMKII was inhibited in these K562 cells.
In Vivo	<b>Animal experiment</b>	
	Applications:	

## Product Citations

See more customer validations on [www.apexbt.com](http://www.apexbt.com).

## References

- [1]. Tokumitsu H, Chijiwa T, Hagiwara M, Mizutani A, Terasawa M, Hidaka H. KN-62, 1-[N,O-bis(5-isoquinolinesulfonyl)-N-methyl-L-tyrosyl]-4-phenylpiperazine, a specific inhibitor of Ca<sup>2+</sup>/calmodulin-dependent protein kinase II. J Biol Chem. 1990 Mar 15;265(8):4315-20.
- [2]. Minami H, Inoue S, Hidaka H. The effect of KN-62, Ca<sup>2+</sup>/calmodulin dependent protein kinase II inhibitor on cell cycle. Biochem Biophys Res Commun. 1994 Feb 28;199(1):241-8.

## 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. Short-term 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.

**APExBIO Technology**

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