



## Product Introduction

### KN93

#### Technical Data:

<b>Molecular Weight (MW):</b>	501.04	
<b>Formula:</b>	C <sub>26</sub> H <sub>29</sub> ClN <sub>2</sub> O <sub>4</sub> S	
<b>Solubility:</b>	Soluble to 100 mM in DMSO with gentle warming	
<b>Purity:</b>	>98%	
<b>Storage:</b>	Store at +4°C	
<b>CAS No.:</b>	139298-40-1	

#### Biological Activity

Potent, cell permeable inhibitor of CaM kinase II (IC<sub>50</sub> = 0.37 μM). Also a direct extracellular open channel blocker of voltage-gated potassium channels (IC<sub>50</sub> = 307 nM for Kv1.5); independent of CaM kinase II inhibition.

#### References

- Sumi et al (1991) The newly synthesized selective Ca<sup>2+</sup>/calmodulin dependent protein kinase II inhibitor KN-93 reduces dopamine content in PC12h cells. *Biochem.Biophys.Res.Comm.* 181 968.
- Anderson et al (1998) KN-93, an inhibitor of multifunctional Ca<sup>2+</sup>/calmodulin-dependent protein kinase, decreases early afterdepolarizations in rabbit heart. *J.Pharmacol.Exp.Ther.* 287 996. PMID: 9864285.
- Patel et al (1999) Calcium/calmodulin-dependent phosphorylation and activation of human Cdc25-C at the G2/M phase transition in HeLa cells. *J.Biol.Chem.* 274 7958. PMID: 10075693.
- Rezazadeh et al (2006) KN-93 (2-[N-(2-Hydroxyethyl)]-N-(4-methoxybenzenesulfonyl)]-amino-N-(4-chlorocinnamyl)-N-methyl benzylamine), a calcium/calmodulin-dependent protein kinase II inhibitor, is a direct extracellular

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blocker of voltage-gated potassium channels. J.Pharmacol.Exp.Ther. 317  
292. PMID: 16368898.



If you know of a relevant citation for this product please let us know.

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