

Product Name: KN 93

Catalog No.: 1278

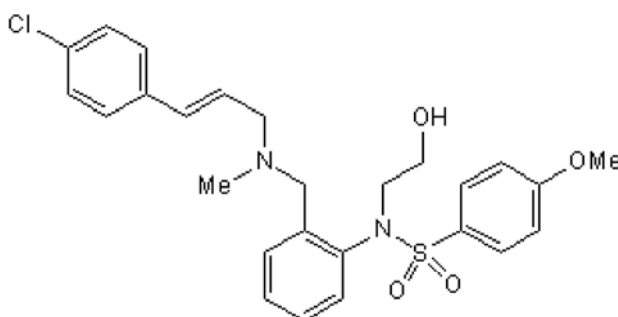
Batch No.: 3

CAS Number: 139298-40-1

IUPAC Name: *N*-[2-[[[3-(4-Chlorophenyl)-2-propenyl]methylamino]methyl]phenyl]-*N*-(2-hydroxyethyl)-4-methoxybenzenesulphonamide

1. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-----------------------------------|---|
| Batch Molecular Formula: | C ₂₆ H ₂₉ ClN ₂ O ₄ S·¼H ₂ O |
| Batch Molecular Weight: | 505.54 |
| Physical Appearance: | White solid |
| Solubility: | DMSO to 100 mM with gentle warming |
| Storage: | Store at +4°C |
| Batch Molecular Structure: | |



2. ANALYTICAL DATA

| | |
|---------------------------|---------------------------|
| HPLC: | Shows 99.9% purity |
| ¹H NMR: | Consistent with structure |
| Mass Spectrum: | Consistent with structure |
| Microanalysis: | |

| | Carbon | Hydrogen | Nitrogen |
|-------------|--------|----------|----------|
| Theoretical | 61.77 | 5.88 | 5.54 |
| Found | 61.77 | 5.93 | 5.47 |

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

Product Name: KN 93

Catalog No.: 1278

Batch No.: 3

CAS Number: 139298-40-1

IUPAC Name: *N*-[2-[[[3-(4-Chlorophenyl)-2-propenyl]methylamino]methyl]phenyl]-*N*-(2-hydroxyethyl)-4-methoxybenzenesulphonamide

Description:

Potent, cell permeable inhibitor of CaM kinase II (IC₅₀ = 0.37 μM). Also a direct extracellular open channel blocker of voltage-gated potassium channels (IC₅₀ = 307 nM for K_v1.5) and abolishes IKr in ventricular myocytes (IC₅₀ = 102.6 nM) independently of CaM kinase II inhibition. Water soluble form and Negative Control also available.

Physical and Chemical Properties:

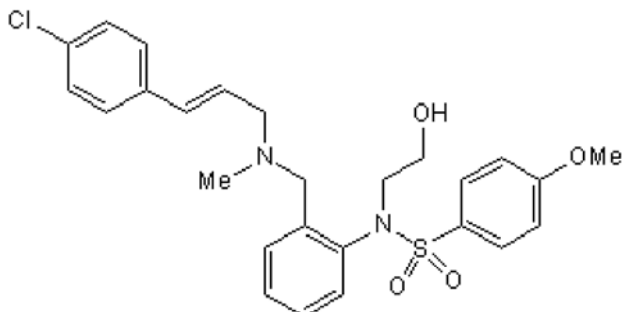
Batch Molecular Formula: C₂₆H₂₉ClN₂O₄S.½H₂O

Batch Molecular Weight: 505.54

Physical Appearance: White solid

Minimum Purity: >98%

Batch Molecular Structure:



Storage: Store at +4°C

Solubility & Usage Info:

DMSO to 100 mM with gentle warming

This product is supplied as a lyophilized solid and may be very hard to visualize. Solutions should be made by adding solvent directly to the vial. The vial should then be vortexed vigorously to ensure the product has completely dissolved.

Stability and Solubility Advice:

Some solutions can be difficult to obtain and can be encouraged by rapid stirring, sonication or gentle warming (in a 45-60°C water bath).

Information concerning product stability, particularly in solution, has rarely been reported and in most cases we can only offer a general guide. Our standard recommendations are:

SOLIDS: Provided storage is as stated on the product label and the vial is kept tightly sealed, the product can be stored for up to 6 months from date of receipt.

SOLUTIONS: We recommend that stock solutions, once prepared, are stored aliquoted in tightly sealed vials at -20°C or below and used within 1 month. Wherever possible solutions should be made up and used on the same day.

References:

Hegyí et al (2015) KN-93 inhibits IKr in mammalian cardiomyocytes. *J.Mol.Cell.Cardiol.* **89** 173. PMID: 26463508.

Rezazadeh et al (2006) KN-93 (2-[*N*-(2-Hydroxyethyl)]-*N*-(4-methoxybenzenesulfonyl)]-amino-*N*-(4-chlorocinnamyl)]-*N*-methylbenzylamine), a calcium/calmodulin-dependent protein kinase II inhibitor, is a direct extracellular blocker of voltage-gated potassium channels. *J.Pharmacol.Exp.Ther.* **317** 292. PMID: 16368898.

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.

Sumi et al (1991) The newly synthesized selective Ca²⁺/calmodulin dependent protein kinase II inhibitor KN-93 reduces dopamine content in PC12h cells. *Biochem.Biophys.Res.Comm.* **181** 968. PMID: 1662507.

Caution - Not Fully Tested • Research Use Only • Not For Human or Veterinary Use

bio-techne.com

info@bio-techne.com
techsupport@bio-techne.com

North America

Tel: (800) 343 7475

China

info.cn@bio-techne.com
Tel: +86 (21) 52380373

Europe Middle East Africa

Tel: +44 (0)1235 529449

Rest of World

www.tocris.com/distributors
Tel:+1 612 379 2956