

KN-93 (hydrochloride)

Catalog No: tcsc1561



Available Sizes

Size: 1mg

Size: 5mg

Size: 10mg

Size: 25mg

Size: 50mg



Specifications

CAS No:

1956426-56-4

Formula:

$C_{26}H_{30}Cl_2N_2O_4S$

Pathway:

Neuronal Signaling

Target:

CaMK

Purity / Grade:

>98%

Solubility:

H2O : 0.45 mg/mL (0.84 mM; Need ultrasonic and warming); DMSO : \geq 31 mg/mL (57.67 mM)

Observed Molecular Weight:

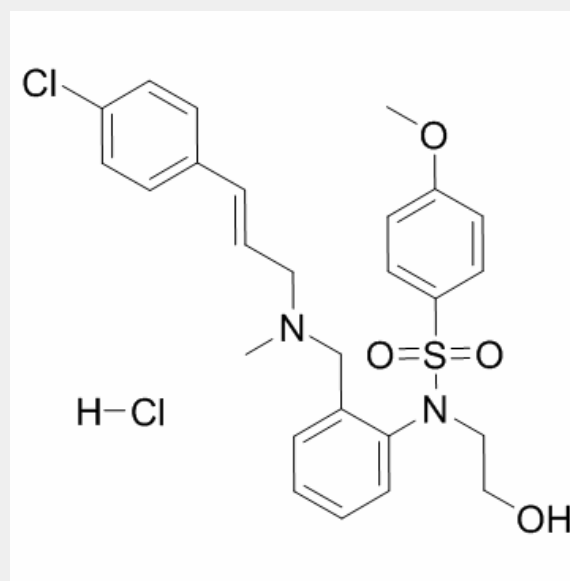
537.5

Product Description

KN-93 hydrochloride is a cell-permeable, reversible and competitive inhibitor calmodulin-dependent kinase type II (**CaMKII**) with a K_i of 370 nM.

IC50 & Target: K_i : 370 nM (CaMK-II)

In Vitro: After 2 days of KN-93 treatment, 95% of cells are arrested in G1. G1 arrest is reversible; 1 day after KN-93 release, a peak of cells had progressed into S and G2-M. KN-93 also blocks cell growth stimulated by basic fibroblast growth factor, platelet-derived growth factor-BB, epidermal growth factor, and insulin-like growth factor-1 in NIH 3T3 fibroblasts^[1]. KN-93 inhibits the H^+ , K^+ -ATPase activity but strongly dissipates the proton gradient formed in the gastric membrane vesicles and reduces the volume of luminal space^[2]. KN-93 (0.5 μ M) prevents increased LV developed pressure during action potential prolongation and early afterdepolarizations. Ca^{2+} -independent CaM kinase activity is increased during early afterdepolarizations and this increase is prevented by KN-93^[3].



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