



LKT Laboratories, Inc.

KN-93

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Product Information

Product ID K5200

CAS No. 1188890-41-6

Chemical Name N-[2-({[(2E)-3-(4-Chlorophenyl)-2-propen-1-yl](methyl)amino}methyl)phenyl]-N-(2-hydroxyethyl)-4-methoxybenzenesulfonamide phosphate (1:1)

Synonym 2-[N-(2-Hydroxyethyl)-N-(4-methoxybenzenesulfonyl)]amino-N-(4-chlorocinnamyl)-N-methylbenzylamine

Formula C₂₆H₂₉ClN₂O₄S · H₃O₄P

Formula Wt. 599.03

Melting Point

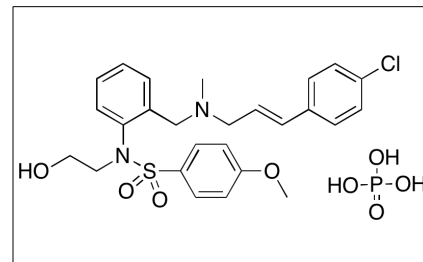
Purity ≥98%

Solubility Soluble in water

Store Temp -20°C

Ship Temp Ambient

Description KN-93 is an inhibitor of calmodulin-dependent kinase II (CaMKII); it may also inhibit L-type Ca²⁺ channels. KN-93 exhibits anticancer, anti-arrhythmic, cardiomodulatory, antinociceptive, and immunomodulatory activities. In vitro, KN-93 decreases VEGF expression. When combined with VEGF inhibitors, this compound decreases tumor growth in animal models of cancer. In other animal models, KN-93 prevents the development of arrhythmia and increases levels of Treg cells. KN-93 also increases withdrawal latency in animal models of thermal and mechanical pain.



Bulk quantities available upon request

Product ID	Size
K5200	1 mg
K5200	5 mg
K5200	25 mg

References Takeuchi M, Yamamoto T. Apoptosis induced by NAD depletion is inhibited by KN-93 in a CaMKII-independent manner. *Exp Cell Res*. 2015 Jul 1;335(1):62-7. PMID: 26024774.

Tzimas C, Terrovitis J, Lehnart SE, et al. Calcium/calmodulin-dependent protein kinase II (CaMKII) inhibition ameliorates arrhythmias elicited by junctin ablation under stress conditions. *Heart Rhythm*. 2015 Jul;12(7):1599-610. PMID: 25814413.

Daft PG, Yang Y, Napierala D, et al. The growth and aggressive behavior of human osteosarcoma is regulated by a CaMKII-controlled autocrine VEGF signaling mechanism. *PLoS One*. 2015 Apr 10;10(4):e0121568. PMID: 25860662.

Bian H, Yu LC. Intra-nucleus accumbens administration of the calcium/calmodulin-dependent protein kinase II inhibitor KN93 induced antinociception in rats with mononeuropathy. *Neurosci Lett*. 2014 Nov 7;583:6-10. PMID: 25218714.

Koga T, Mizui M, Yoshida N, et al. KN-93, an inhibitor of calcium/calmodulin-dependent protein kinase IV, promotes generation and function of Foxp3⁺ regulatory T cells in MRL/lpr mice. *Autoimmunity*. 2014 Nov;47(7):445-50. PMID: 24829059.

Caution: This product is intended for laboratory and research use only. It is not for human or drug use.