

## ShK-Dap22

## Chemical Properties

CAS No. :	220384-25-8
Formula:	C166H268N54O48S7
Molecular Weight:	4012.7
Storage:	Keep away from moisture Powder: -20°C for 3 years   In solvent: -80°C for 1 year <small>Actual storage temperature shall be subject to the COA.</small>

RSCTIPKSRCTAFCKHSM(Dpr)YRLSFCRKTGTC  
(Disulfide bridge: Cys<sub>3</sub>-Cys<sub>35</sub>; Cys<sub>12</sub>-Cys<sub>28</sub>; Cys<sub>17</sub>-Cys<sub>32</sub>)

## Biological Description

Description	Extremely potent KV1.3 channel blocker (Kd = 23 pM for mKV1.3 currents). Selective for KV1.3 over other mammalian potassium channels (IC50 values are 23, 1800, 10500, 37000 and 39000 pM for mKV1.3, mKV1.1, hKV1.6, mKV1.4 and rKV1.2 respectively, and >100000 pM for hKV1.5, mKV1.7, hKV3.1, rKV3.4 and hKCa4). Suppresses T cell activation in vitro (IC50 < 500 pM).
Targets(IC50)	Potassium Channel

## Solubility Information

Solubility	H2O: 1 mg/mL (0.25 mM) (< 1 mg/ml refers to the product slightly soluble or insoluble)
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## Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	0.2492 mL	1.246 mL	2.4921 mL
5 mM	0.0498 mL	0.2492 mL	0.4984 mL
10 mM	0.0249 mL	0.1246 mL	0.2492 mL
50 mM	0.005 mL	0.0249 mL	0.0498 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Kalman et al (1998) ShK-Dap22, a potent KV1.3-specific immunosuppressive polypeptide. J.Biol.Chem. 273 32697  
PMID:  
Robbins et al (2005) Hypoxia modulates early events in T cell receptor-mediated activation in human T lymphocytes via KV1.3 channels. J.Physiol. 564 131 PMID:

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