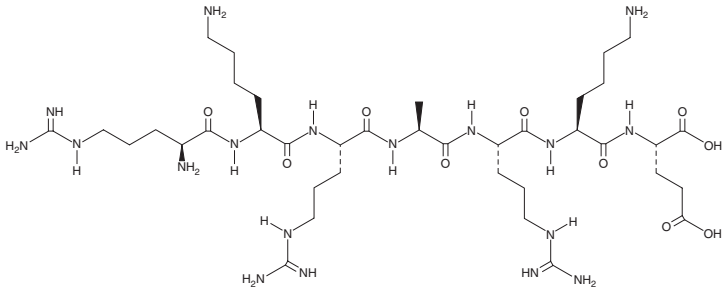
PRODUCT INFORMATION

PKG Inhibitor

Item No. 15995

CAS Registry No.:	82801-73-8
Formal Name:	L-arginyl-L-lysyl-L-arginyl-L-alanyl-L-arginyl-L-lysyl-L-glutamic acid
Synonyms:	Arginyl-lysyl-arginyl-alanyl-arginyl-lysyl-glutamic acid, Protein Kinase G Inhibitor
MF:	$C_{38}H_{74}N_{18}O_{10}$
FW:	943.1
Purity:	≥95%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

PKG inhibitor is supplied as a crystalline solid. A stock solution may be made by dissolving the PKG inhibitor in the solvent of choice, which should be purged with an inert gas. PKG Inhibitor is soluble in organic solvents such as DMSO and dimethyl formamide. The solubility of PKG inhibitor in these solvents is approximately 15 and 5 mg/ml, respectively.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. Organic solvent-free aqueous solutions of PKG inhibitor can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of PKG inhibitor in PBS (pH 7.2) is approximately 10 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

PKG inhibitor is a specific cGMP-dependent PKG inhibitor (K_i = 86 µM).[1] This synthetic peptide is a nonphosphorylatable analog of a substrate corresponding to the serine-32 phosphorylation site in histone H2B.[1] PKG inhibitor has been reported to block cGMP-dependent NMDA potentiation and nitric oxide-induced depression of GABA currents in cultured retinal amacrine cells.[2]

References

1. Glass, D.B. Differential responses of cyclic GMP-dependent and cyclic AMP-dependent protein kinases to synthetic peptide inhibitors. *Biochem. J.* **213(1)**, 159-164 (1983).
2. Wexler, E.M., Stanton, P.K., and Nawy, S. Nitric oxide depresses GABAA receptor function via coactivation of cGMP-dependent kinase and phosphodiesterase. *J. Neurosci.* **18(7)**, 2342-2349 (1998).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM