

PRODUCT INFORMATION



PKCα (C2-4) Inhibitor Peptide

Item No. 17478

Synonyms:	Protein Kinase Ca (C2-4) Inhibitor Peptide
MF:	C ₄₇ H ₇₄ N ₁₄ O ₁₇
FW:	1,107.2
Purity:	≥95%
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥4 years

Ser—Leu—Asn—Pro—Glu—Tyr—Arg—Gln—Thr

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

Laboratory Procedures

PKCα (C2-4) inhibitor peptide is supplied as a crystalline solid. A stock solution may be made by dissolving the PKCα (C2-4) inhibitor peptide in the solvent of choice. PKCα (C2-4) inhibitor peptide is soluble in organic solvents such as DMSO and dimethyl formamide, which should be purged with an inert gas. The solubility of PKCα (C2-4) inhibitor peptide in these solvents is approximately 10 and 1 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 PKCα (C2-4) inhibitor peptide can be prepared by directly dissolving the crystalline solid in aqueous buffers. The solubility of PKCα (C2-4) inhibitor peptide in PBS, pH 7.2, is approximately 5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Description

The C2 domain of conventional PKC isoforms mediates calcium-dependent translocation. Peptides from that region can block PKC translocation and inhibit function, both in cells and cell lysates.¹ PKCα (C2-4) inhibitor peptide is a synthetic peptide that blocks PKC activity in HepG2 cells stimulated with calcium and pancreastatin when applied at 10 μM.²

References

1. Ron, D., Luo, J., and Mochly-Rosen, D. C2 region-derived peptides inhibit translocation and function of b protein kinase C *in vivo*. *J. Biol. Chem.* **270(41)**, 24180-24187 (1995).
2. Gayen, J.R., Saberi, M., Schenk, S., *et al.* A novel pathway of insulin sensitivity in chromogranin A null mice: A crucial role for pancreastatin in glucose homeostasis. *J. Biol. Chem.* **248(42)**, 28498-28509 (2009).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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