

# PKC peptide inhibitor, Cell Permeable: sc-3093

## BACKGROUND

Santa Cruz Biotechnology, Inc. offers a range of cell permeable synthetic peptide inhibitors engineered specifically for *in vitro* studies. *In vitro* peptide inhibition measures the activity of kinases inside of their natural cellular environment, facilitating characterization of kinase function, substrate specificity and the effects of inhibitors on kinase activity. SCBT's cell permeable synthetic peptide inhibitors are designed with precision and offer exceptional performance in studying kinase activity in order to advance signal transduction proteomics research.

## REFERENCES

1. Ward, N.E. and O'Brian, C.A. 1993. Inhibition of protein kinase C by N-myristoylated peptide substrate analogs. *Biochemistry* 32: 11903-11909.
2. Eichholtz, T., et al. 1993. A myristoylated pseudosubstrate peptide, a novel protein kinase C inhibitor. *J. Biol. Chem.* 268: 1982-1986.
3. Palmieri, D., et al. 2008. Procollagen I COOH-terminal fragment induces VEGF-A and CXCR4 expression in breast carcinoma cells. *Exp. Cell Res.* 14: 2289-2298.

## SOURCE

Origin: Synthetic  
 Organism: Human (*Homo sapiens*)  
 Molecular Formula: C<sub>60</sub>H<sub>106</sub>N<sub>18</sub>O<sub>11</sub>  
 Molecular Weight: 1255.60 kDa  
 Accession: P17252 PKC-alpha, P05771 PKC-beta  
 Sequence: 20 FARKGALRQ 28 (Myr-N-FARKGALRQ-NH2)  
 (N-Myr-Phe-Ala-Arg-Lys-Gly-Ala-Leu-Arg-Gln-NH2)  
 Purity: ≥ 95% by HPLC

## PRODUCT

PKC peptide inhibitor, Cell Permeable is an N-terminal myristoylated (membrane permeable) substrate (competitive inhibitor) sequence derived from amino acids 20-28 of human PKC $\alpha$ /PKC $\beta$ . PKC peptide inhibitor, Cell Permeable is provided in a single vial. Each vial contains 500  $\mu$ g (0.5 mg) synthetic peptide in 100  $\mu$ l (0.1 ml) [5.0  $\mu$ g/ $\mu$ l].

## APPLICATIONS

Protein kinase peptide inhibitors are used to investigate the activity and specificity of kinases. These small (< 20 amino acid) synthetic peptide molecules mimic the natural substrates of kinases, and allow researchers to measure events catalyzed by kinases.

## STORAGE

Store at -20° C; avoid excessive freeze/thaw. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## PREPARATION METHOD

Synthetic peptide substrates are designed from literature, and engineered by solid-phase peptide synthesis. After the addition of each amino acid, any remaining protecting groups are removed, and the peptide is washed to remove any unreacted reagents or side products. This process is repeated iteratively until the desired peptide sequence is obtained. Once the peptide chain is complete, it is cleaved from the solid support and the protecting groups are removed. The peptide is then purified and supplied in a single vial [0.5mg/0.1ml].

## SELECT PRODUCT CITATIONS

1. Palmieri, D., et al. 2008. Procollagen I COOH-terminal fragment induces VEGF-A and CXCR4 expression in breast carcinoma cells. *Exp. Cell Res.* 314: 2289-2298.

## RESEARCH USE

For research use only, not for use in diagnostic procedures.

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