

Active Recombinant Human protein kinase C, Alpha, His-tagged

Cat. No. PRKCA-58H Lot. No. (See product label)

SPECIFICATION

Product Overview	Recombinant Human Protein Kinase C alpha produced in Sf9 is a glycosylated, polypeptide chain containing amino acids 2-672 and having a molecular mass of 80 KD. This protein is the full-length form of the protein with an amino terminal poly His-tag. PKC- is purified by proprietary chromatographic techniques.
Species	Human
Source	Sf9 Cells
ProteinLength	2-672 a.a.
Description	Protein kinase C (PKC) is a family of serine- and threonine-specific protein kinases that can be activated by calcium and the second messenger diacylglycerol. PKC family members phosphorylate a wide variety of protein targets and are known to be involved in diverse cellular signaling pathways. PKC family members also serve as major receptors for phorbol esters, a class of tumor promoters. Each member of the PKC family has a specific expression profile and is believed to play a distinct role in cells.
Unit Definition	The Unit Definition is 7200-9000 units/mg. One unit of PKC-activity transfers 1 nmole of phosphate to a PKC substrate peptide (myelin basic protein 4-14) per minute at 30°C. Recombinant human active PKC-also phosphorylates full length myelin basic protein, histone, MARKS, and GSK-3. Activity requires incubation with lipid activators,

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and may vary depending on the substrate and reaction conditions.

Purity

Greater than 95% as determined by SDS-PAGE.

Formulation

PKC- is supplied at a of 0.3mg/ml in 50mM Tris, pH 7.4, 0.1M NaCl, 20% glycerol, 1mM DTT, 0.1mM EDTA, 0.2mM PMSF and 0.03% Brij-35.

Storage

Store at 4°C if entire vial will be used within 2-4 weeks. Store, frozen at -20°C for longer periods of time. Avoid multiple freeze-thaw cycles.

GENE INFORMATION

Gene Name

[PRKCA protein kinase C, alpha \[Homo sapiens \]](#)

Synonyms

PRKCA; protein kinase C, alpha; AAG6; PKCA; PRKACA; MGC129900; MGC129901; PKC-alpha; EC2.7.11. 13; Protein kinase C alpha type; aging-associated gene 6; protein kinase C alpha type

Gene ID

[5578](#)

mRNA Refseq

[NM_002737](#)

Protein Refseq

[NP_002728](#)

UniProt ID

[P17252](#)

MIM

[176960](#)

**Chromosome
Location**

17q22-q24

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Pathway	Calcium signaling pathway; ErbB signaling pathway; Fc epsilon RI signaling pathway; Fc gamma R-mediated phagocytosis; Focal adhesion; Glioma; GnRH signaling pathway; Leukocyte transendothelial migration; Long-term potentiation; Long-term depression; MAPK signaling pathway; Melanogenesis; Natural killer cell mediated cytotoxicity; Non-small cell lung cancer; Pathogenic Escherichia coli infection - EHEC; Pathways in cancer; Phosphatidylinositol signaling system; Tight junction; VEGF signaling pathway; Vascular smooth muscle contraction; Vibrio cholerae infection; Wnt signaling pathway; Diabetes pathways; Hemostasis; Synaptic Transmission
Function	ATP binding; calcium ion binding; calcium-dependent protein kinase C activity; nucleotide binding; protein binding; transferase activity; zinc ion binding

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