

Recombinant Mouse Pkn1 Protein, Myc/DDK-tagged

Cat. No. Pkn1-4890M **Lot. No.** (See product label)

SPECIFICATION

Product Overview Purified recombinant protein of mouse full-length protein kinase N1 (Pkn1), with C-terminal MYC/DDK tag, expressed in HEK293T cells.

Species Mouse

Source HEK293

Description

PKC-related serine/threonine-protein kinase involved in various processes such as regulation of the intermediate filaments of the actin cytoskeleton, cell migration, tumor cell invasion and transcription regulation. Part of a signaling cascade that begins with the activation of the adrenergic receptor ADRA1B and leads to the activation of MAPK14. Regulates the cytoskeletal network by phosphorylating proteins such as VIM and neurofilament proteins NEFH, NEFL and NEFM, leading to inhibit their polymerization. Phosphorylates 'Ser-575', 'Ser-637' and 'Ser-669' of MAPT/Tau, lowering its ability to bind to microtubules, resulting in disruption of tubulin assembly. Acts as a key coactivator of androgen receptor (ANDR)-dependent transcription, by being recruited to ANDR target genes and specifically mediating phosphorylation of 'Thr-11' of histone H3 (H3T11ph), a specific tag for epigenetic transcriptional activation that promotes demethylation of histone H3 'Lys-9' (H3K9me) by KDM4C/JMJD2C. Phosphorylates HDAC5, HDAC7 and HDAC9, leading to impair their import in the nucleus. Phosphorylates 'Thr-38' of PPP1R14A, 'Ser-159', 'Ser-163' and 'Ser-170' of MARCKS, and GFAP. Able to phosphorylate RPS6 in vitro.

Molecular Mass 104.9 kDa

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Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade after receiving vials.
Concentration	>50 µg/mL as determined by microplate BCA method
Storage Buffer	25 mM Tris.HCl, pH 7.3, 100 mM glycine, 10% glycerol.

GENE INFORMATION

Gene Name	Pkn1 protein kinase N1 [<i>Mus musculus</i> (house mouse)]
Official Symbol	Pkn1
Synonyms	Pkn1; protein kinase N1; P; PA; PR; DBK; Pkn; Prk; Stk; PAK1; PRK1; Stk3; Prkcl1; F730027O18Rik; serine/threonine-protein kinase N1; protein kinase C-like 1; protein kinase C-like PKN; protein-kinase C-related kinase 1; serine-threonine protein kinase N; serine/threonine kinase 3; EC 2.7.11.13
Gene ID	320795
mRNA Refseq	NM_177262
Protein Refseq	NP_796236
UniProt ID	P70268

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