Human PRKACA Knockdown Cell Lysate

Cat. No. PRKACA-491HKCL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	WB-validated PRKACA Knockdown HT-1080 Cell Lysate
Species	Human
Source	HT-1080
Description	This gene encodes one of the catalytic subunits of protein kinase A, which exists as a tetrameric holoenzyme with two regulatory subunits and two catalytic subunits, in its inactive form. cAMP causes the dissociation of the inactive holoenzyme into a dimer of regulatory subunits bound to four cAMP and two free monomeric catalytic subunits. Four different regulatory subunits and three catalytic subunits have been identified in humans. cAMP-dependent phosphorylation of proteins by protein kinase A is important to many cellular processes, including differentiation, proliferation, and apoptosis. Constitutive activation of this gene caused either by somatic mutations, or genomic duplications of regions that include this gene, have been associated with hyperplasias and adenomas of the adrenal cortex and are linked to corticotropin-independent Cushing's syndrome. Alternative splicing results in multiple transcript variants encoding different isoforms. Tissue-specific isoforms that differ at the N-terminus have been described, and these isoforms may differ in the post-translational modifications that occur at the N-terminus of some isoforms.
Form	Cell-Tissue Lysis buffer
Molecular Mass	41 kDa

Tel: 1-631-559-9269 1-516-512-3133
Email: info@creative-biomart.com Fax: 1-631-938-8127
45-1 Ramsey Road, Shirley, NY 11967, USA

Notes	Instruction of use: This knockdown cell lysate should be paired with wild-type HT-1080 cell lysate for use. For Western blotting, we recommend running wild-type and knockdown lysates on the same gel, and loading each well with equal volume and equal amount of total proteins.
Storage	Store at -20 centigrade for two years.
Concentration	Lot-specific
Shipping	Blue Ice
Components	1 vial of 100 µg WT HT-1080 cell lysate 1 vial of 100 µg PRKACA KD HT-1080 cell lysate
Protein Families	Druggable Genome, Protein Kinase
Protein Pathways	Apoptosis, Calcium signaling pathway, Chemokine signaling pathway, Dilated cardiomyopathy, Gap junction, GnRH signaling pathway, Hedgehog signaling pathway, Insulin signaling pathway, Long-term potentiation, MAPK signaling pathway, Melanogenesis, Olfactory transduction, Oocyte meiosis, Prion diseases, Progesterone-mediated oocyte maturation, Taste transduction, Vascular smooth muscle contraction, Vibrio cholerae infection, Wnt signaling pathway
Lysate QC	RT-qPCR; Western Blotting (WB)

GENE INFORMATION

Gene Name	PRKACA protein kinase, cAMP-dependent, catalytic, alpha [Homo sapiens (human)]
Official Symbol	PRKACA

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Synonyms	PRKACA; protein kinase, cAMP-dependent, catalytic, alpha; cAMP-dependent protein kinase catalytic subunit alpha; PKACa; PKA C-alpha; protein kinase A catalytic subunit; cAMP-dependent protein kinase catalytic subunit alpha, isoform 1; PKACA; MGC48865; MGC102831;
Gene ID	5566
mRNA Refseq	NM_002730
Protein Refseq	NP_002721
MIM	601639
UniProt ID	P17612

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