PDE4D3 Immunizing Blocking Peptide

PRODUCT OVERVIEW

Product Name	PDE4D3, Blocking Peptide
Full Product Name	PDE4D3 Immunizing Peptide
Product Gene Name	PDE4D blocking peptide
Product Synonym Gene Name	PDE4D3
Product Synonym Names	PDE4D3; phosphodiesterase 4D3;
Sequence	HVNNFPFRRH S-C
Species Reactivity	Human, Rat, Pig
Form/Format	100ug of dried peptide
Preparation and Storage	Shipped at ambient temperature, store at -20 degree C
Molecular Weight	24,429 Da
OMIM	600129
ISO Certification	Manufactured in an ISO 9001:2008 Certified Laboratory.
Related Product Information for PDE4D blocking peptide	MBS425594 is a blocking peptide targeting PDE4D. Also known as PDE4D3 Immunizing Peptide. Reactive in Human, Rat, Pig.
Other Notes	Small volumes of PDE4D blocking peptide vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PDE4D. It may not necessarily be applicable to this product.

NCBI GI #	32306513
NCBI GeneID	5144
NCBI Accession #	NP_006194.2
UniProt Secondary Accession #	O43433; Q13549; Q13550; Q13551; Q7Z2L8; Q8IV84; Q8IVA9; Q8IVD2; Q8IVD3; Q96HL4; Q9HCX7
UniProt Related Accession #	Q08499
GenBank Nucleotide #	NM_006203.4
NCBI Official Full Name	cAMP-specific 3',5'-cyclic phosphodiesterase 4D isoform PDE4D3
NCBI Official Synonym Full Names	phosphodiesterase 4D
NCBI Official Symbol	PDE4D
NCBI Official Synonym Symbols	DPDE3; PDE43; STRK1; ACRDYS2; HSPDE4D; PDE4DN2
UniProt Protein Name	cAMP-specific 3',5'-cyclic phosphodiesterase 4D
UniProt Synonym Protein Names	DPDE3; PDE43
Protein Family	cAMP-specific 3',5'-cyclic phosphodiesterase

UniProt Gene Name	PDE4D
UniProt Synonym Gene Names	DPDE3
UniProt Entry Name	PDE4D_HUMAN
NCBI Protein Information	cAMP-specific 3',5'-cyclic phosphodiesterase 4D
NCBI Summary for PDE4D	This gene encodes one of four mammalian counterparts to the fruit fly 'dunce' gene. The encoded protein has 3',5'-cyclic-AMP phosphodiesterase activity and degrades cAMP, which acts as a signal transduction molecule in multiple cell types. This gene uses different promoters to generate multiple alternatively spliced transcript variants that encode functional proteins.[provided by RefSeq, Sep 2009]
UniProt Comments for PDE4D	PDE4D: Hydrolyzes the second messenger cAMP, which is a key regulator of many important physiological processes. Homodimer for the long isoforms. Isoforms with truncated N-termini are monomeric. Isoform 3 is part of a ternary complex containing PRKAR2A, PRKAR2B and AKAP9. Interacts with PDE4DIP. Identified in a complex composed of RYR1, PDE4D, PKA, FKBP1A and protein phosphatase 1 (PP1). Isoform 5, isoform N3 and isoform 12 bind GNB2L1 via their unique N-terminus. Binds ARRB2. Widespread; most abundant in skeletal muscle. Isoform 6 is detected in brain. Isoform 8 is detected in brain, placenta, lung and kidney. Isoform 7 is detected in heart and skeletal muscle. Inhibited by rolipram. Activated by phosphatidic acid. Belongs to the cyclic nucleotide phosphodiesterase family. PDE4 subfamily. 12 isoforms of the human protein are produced by alternative splicing. Protein type: EC 3.1.4.53; Nucleotide Metabolism - purine; Phosphodiesterase Chromosomal Location of Human Ortholog: 5q12 Cellular Component: cytosol; voltage-gated calcium channel complex Molecular Function: 3',5'-cyclic-AMP phosphodiesterase activity; ATPase binding; beta-2 adrenergic receptor binding; cAMP binding; drug binding; enzyme binding; protein binding Biological Process: cAMP catabolic process; negative regulation of heart contraction; negative regulation of peptidyl-serine phosphorylation; positive regulation of interferon-gamma production; positive regulation of interleukin-2 production; positive regulation of interleukin-5 production; regulation of heart rate; regulation of receptor activity; T cell receptor signaling pathway
Research Articles on PDE4D	**1.** Data highlight an increase in PDE4D7 expression during initial tumorigenesis and further support the findings that PDE4D7 levels fall profoundly in castration resistant prostate cancer, suggesting it as a potential biomarker and therapeutic target.
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