FKBP1A Peptide - N-Terminal Region Blocking Peptide

PRODUCT OVERVIEW

Product Name	FKBP1A, Blocking Peptide
Full Product Name	FKBP1A Peptide - N-terminal region
Product Gene Name	FKBP1A blocking peptide
Product Synonym Gene Name	FKBP-12; FKBP1; FKBP12; FKBP12C; PKC12; PKCI2; PPIASE; FKBP-1A
Sequence	VQVETISPGD GRTFPKRGQT CVVHYTGMLE DGKKFDSSRD RNKPFKFMLG
Species Reactivity	Human
Form/Format	Lyophilized powder
Preparation and Storage	Add 100ul of sterile PBS. Final peptide concentration is 1 mg/ml in PBS. For longer periods of storage, store at -20 degree C. Avoid repeat freeze-thaw cycles.
Antibody/Peptide Pairs	FKBP1A peptide (MBS3241579) is used for blocking the activity of FKBP1A antibody (MBS3216678)
Molecular Weight	12kDa
OMIM	186945
Product Categories/Family for FKBP1A blocking peptide	Peptide
Applications Tested/Suitable for FKBP1A blocking peptide	Western Blot (WB)
Related Product Information for FKBP1A blocking peptide	This is a synthetic peptide designed for use in combination with anti-FKBP1A Antibody, made Target Description: The protein encoded by this gene is a member of the immunophilin protein family, which play a role in immunoregulation and basic cellular processes involving protein folding and trafficking. The protein is a cis-trans prolyl isomerase that binds the immunosuppressants FK506 and rapamycin. It interacts with several intracellular signal transduction proteins including type I TGF-beta receptor. It also interacts with multiple intracellular calcium release channels, and coordinates multi-protein complex formation of the tetrameric skeletal muscle ryanodine receptor. In mouse, deletion of this homologous gene causes congenital heart disorder known as noncompaction of left ventricular myocardium.
Other Notes	Small volumes of FKBP1A 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.
Searchable Terms for FKBP1A purchase	MBS3241579 is a blocking peptide targeting FKBP1A. Also known as FKBP1A Peptide - N-terminal region. Reactive in Human.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for FKBP1A. It may not necessarily be applicable to this product.

NCBI GI #	4503725
NCBI GeneID	2280
NCBI Accession #	NP_000792
UniProt Primary Accession #	P62942
GenBank Nucleotide #	NM_000801

UniProt Protein Name	Peptidyl-prolyl cis-trans isomerase FKBP1A
UniProt Synonym Protein Names	12 kDa FK506-binding protein; 12 kDa FKBP; FKBP-12; Calstabin-1; FK506-binding protein 1A; FKBP-1A; Immunophilin FKBP12; Rotamase
Protein Family	Peptidyl-prolyl cis-trans isomerase
UniProt Gene Name	FKBP1A
UniProt Synonym Gene Names	FKBP1; FKBP12; PPIase FKBP1A; 12 kDa FKBP; FKBP-12; FKBP-1A
UniProt Entry Name	FKB1A_HUMAN
UniProt Comments for FKBP1A	FKBP12: an immunophilin and peptidyl-prolyl cis-trans isomerase that binds to the immunosuppressant drugs FK506 (a.k.a. tacrolimus or Fujimycin) and rapamycin (a.k.a. Sirolimus). The FKBP12/rapamycin complex binds NFAT transcription factors and inhibits the induction of T cell genes including IL-2, IL-3, IL-4, TNF-alpha and GM-CSF. FK506 is used in treating patients after organ transplant and those suffering from autoimmune disorders. The immunosuppressant activity of FKBP12 is not apparently related to its prolyl isomerase activity. The FKBP12/rapamycin complex inhibits the mammalian target of rapamycin (mTOR) pathway by directly binding the mTOR Complex1 (mTORC1). mTORC1 contains Raptor, mLST8, and PRAS40, and interacts with DEPTOR, which inhibits its activity. mTOR, a S/T protein kinase, is a central regulator of cellular growth and metabolism. Its inhibition enhances the dependence on aerobic glycolysis in leukemic cells. Protein type: EC 5.2.1.8; Isomerase Chromosomal Location of Human Ortholog: 20p13 Cellular Component: endoplasmic reticulum membrane; sarcoplasmic reticulum membrane; membrane; cytoplasm; nerve terminal; Z disc; cytosol Molecular Function: signal transducer activity; protein binding; FK506 binding; enzyme binding; protein homodimerization activity; peptidyl-prolyl cis-trans isomerase activity; activin binding; macrolide binding; calcium channel inhibitor activity; Hsp70 protein binding; SMAD binding; transforming growth factor beta receptor binding Biological Process: heart morphogenesis; protein maturation via protein folding; protein peptidyl-prolyl isomerization; protein folding; positive regulation of protein binding; T cell activation; response to caffeine; T cell proliferation; regulation of protein localization; negative regulation of protein amino acid phosphorylation; muscle contraction; transforming growth factor beta receptor signaling pathway; negative regulation of release of sequestered calcium ion into cytosol; fibril organization and biogenesis; ventricular cardiac muscle morphogenesis; protein refolding; response to iron ion; regulation of immune response; positive regulation of I-kappaB kinase/NF-kappaB cascade; cytokine and chemokine mediated signaling pathway; regulation of activin receptor signaling pathway; SMAD protein complex assembly; negative regulation of protein phosphatase type 2B activity; 'de novo' protein folding; positive regulation of protein ubiquitination; release of sequestered calcium ion into cytosol
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