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FKBP4 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP7387b

Specification

FKBP4 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q02790

FKBP4 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 2288

Other Names
Peptidyl-prolyl cis-trans isomerase FKBP4, PPIase FKBP4, 51 kDa FK506-binding protein, FKBP51, 52 kDa FK506-binding protein, 52 kDa FKBP, FKBP-52, 59 kDa immunophilin, p59, FK506-binding protein 4, FKBP-4, FKBP59, HSP-binding immunophilin, HBI, Immunophilin FKBP52, Rotamase, Peptidyl-prolyl cis-trans isomerase FKBP4, N-terminally processed, FKBP4, FKBP52

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP7387b was selected from the C-term region of human FKBP4. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

FKBP4 Antibody (C-term) Blocking Peptide - Protein Information

Name FKBP4

Synonyms FKBP52

Function
Immunophilin protein with PPIase and co-chaperone activities. Component of steroid receptors heterocomplexes through interaction with heat-shock protein 90 (HSP90). May play a role in the intracellular trafficking of heterooligomeric forms of steroid hormone receptors between cytoplasm and nuclear compartments. The isomerase activity controls neuronal growth cones via regulation of TRPC1 channel opening. Acts also as a regulator of microtubule dynamics by inhibiting MAPT/TAU ability to promote microtubule assembly. May have a protective role against oxidative stress in mitochondria.

Cellular Location
Cytoplasm, cytosol. Mitochondrion. Nucleus {ECO:0000250|UniProtKB:P30416}. Cytoplasm, cytoskeleton {ECO:0000250|UniProtKB:Q9QVC8}. Cell projection, axon {ECO:0000250|UniProtKB:Q9QVC8}. Note=Shuttles from mitochondria to nucleus; co-localizes in mitochondria with the glucocorticoid receptor (PubMed:21730050). Colocalized with MAPT/TAU in the distal part of the primary cortical neurons (By similarity) {ECO:0000250|UniProtKB:Q9QVC8, ECO:0000269|PubMed:21730050}

Tissue Location
Widely expressed..

FKBP4 Antibody (C-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides

FKBP4 Antibody (C-term) Blocking Peptide - Images

FKBP4 Antibody (C-term) Blocking Peptide - Background

FKBP4 is a member of the immunophilin protein family, which play a role in immunoregulation and basic cellular processes involving protein folding and trafficking. This protein is a cis-trans prolyl isomerase that binds to the immunosuppressants FK506 and rapamycin. It has high structural and functional similarity to FK506-binding protein 1A (FKBP1A), but unlike FKBP1A, this protein does not have immunosuppressant activity when complexed with FK506. It interacts with interferon regulatory factor-4 and plays an important role in immunoregulatory gene expression in B and T lymphocytes. This protein is known to associate with phytanoyl-CoA alpha-hydroxylase. It can also associate with two heat shock proteins (hsp90 and hsp70) and thus may play a role in the intracellular trafficking of hetero-oligomeric forms of the steroid hormone receptors. This protein correlates strongly with adeno-associated virus type 2 vectors (AAV) resulting in a significant increase in AAV-mediated transgene expression in human cell lines. Thus this protein is thought to have important implications for the optimal use of AAV vectors in human gene therapy.

FKBP4 Antibody (C-term) Blocking Peptide - References

Tatro,E.T., J Neuroimmune Pharmacol 4 (2), 218-226 (2009)Ruan,B., Proc. Natl. Acad. Sci. U.S.A. 105 (1), 33-38 (2008)Cox,M.B., Mol. Endocrinol. 21 (12), 2956-2967 (2007)