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FKBP52 Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP54439

Product Information

Application	WB, IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q02790
Reactivity	Rat, Pig, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	51805
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human HSP56
Epitope Specificity	1-100/459
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cytoplasm; cytosol. Nucleus. Cytoplasm; cytoskeleton.
SIMILARITY	Contains 2 PPIase FKBP-type domains. Contains 3 TPR repeats.
SUBUNIT	Homodimer. Associates with HSP90 and HSP70 in unactivated steroid hormone receptor complexes. Also interacts with peroxisomal phytanoyl-CoA alpha-hydroxylase (PHYH). Interacts with HSF1 in the HSP90 complex. Associates with tubulin (By similarity). Interacts with MAPT/TAU (By similarity). Interacts with NR3C1 and dynein (By similarity). Interacts (via TPR domain) with S100A1, S100A2 and S100A6; the interaction is Ca(2+) dependent. Interaction with S100A1 and S100A2 (but not with S100A6) leads to inhibition of FKBP4-HSP90 interaction.
Post-translational modifications	Phosphorylation by CK2 results in loss of HSP90 binding activity (By similarity).
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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. This encoded 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 encoded 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 encoded protein is thought to have important implications for the optimal use of AAV vectors in human gene therapy. The human genome contains several

non-transcribed pseudogenes similar to this gene. [provided by RefSeq, Sep 2008]

Additional Information

Gene ID	2288
Other Names	Peptidyl-prolyl cis-trans isomerase FKBP4, PPIase FKBP4, 5.2.1.8, 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	Widely expressed.
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

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. Also acts 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..

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