

Store at
-20°C

#11826

FKBP4 Antibody

www.cellsignal.com

100 µl (10 western blots)

Support: 877-678-TECH (8324)
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orders@cellsignal.comEntrez-Gene ID #2288
UniProt ID #Q02790

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For Research Use Only. Not For Use In Diagnostic Procedures.

Applications
W
EndogenousSpecies Cross-Reactivity*
H, M, R, Mk, HmMolecular Wt.
56 kDaIsotype
Rabbit**

Background: FKBP4 (also known as FKBP52) is a member of the immunophilin protein family. FKBP4 does not demonstrate appreciable immunosuppressant activity typical of this family, despite its ability to bind the immunosuppressants FK506 and rapamycin (1,2). While FKBP4 plays an important role in immunoregulatory gene expression in B and T lymphocytes, its role in regulating steroid hormone receptor signaling and cytoskeletal dynamics is garnering significant interest. FKBP4 contains two peptidyl-prolyl cis-trans isomerase (PPIase) domains, the first of which is implicated in steroid receptor signaling while the second interacts with tubulin and other cytoskeletal components. The maturation of cytoplasmic steroid hormone receptors into a functional conformation requires multiple chaperone and co-chaperone components, including HSP90, p23, and FKBP4 (3,4). FKBP4 interacts with HSP90 to facilitate the folding of androgen, glucocorticoid, and progesterone steroid hormone receptors. Indeed, the functionality of these receptors is impaired in the absence of FKBP4, and research studies have found that null mice demonstrate signs of androgen insensitivity syndrome (5). In addition, FKBP4, which is expressed at high levels in the brain, interacts with hyperphosphorylated Tau and antagonizes Tau's ability to promote microtubule polymerization (6). FKBP4 can also suppress amyloid β toxicity in *Drosophila* by processing APP (Alzheimer's Amyloid Precursor Protein) to unfold aggregates (7).

Specificity/Sensitivity: FKBP4 Antibody recognizes endogenous levels of total FKBP4 protein. This antibody does not cross-react with other FKBP proteins.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Met440 of human FKBP4 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

- (1) Peattie, D.A. et al. (1992) *Proc Natl Acad Sci USA* 89, 10974-8.
- (2) Wu, B. et al. (2004) *Proc Natl Acad Sci USA* 101, 8348-53.
- (3) De Leon, J.T. et al. (2011) *Proc Natl Acad Sci USA* 108, 11878-83.
- (4) Ebong, I.O. et al. (2011) *Proc Natl Acad Sci USA* 108, 17939-44.
- (5) Sivits, J.C. et al. (2011) *Curr Opin Pharmacol* 11, 314-9.
- (6) Chambrud, B. et al. (2010) *Proc Natl Acad Sci USA* 107, 2658-63.
- (7) Sanokawa-Akakura, R. et al. (2010) *PLoS One* 5, e8626.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

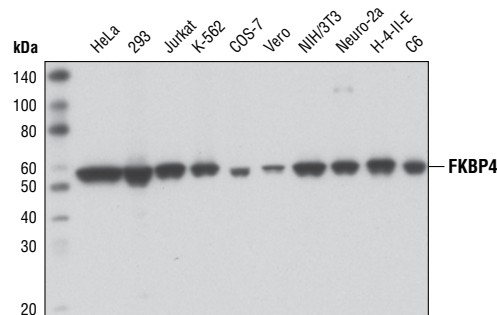
*Species cross-reactivity is determined by western blot.

**Anti-rabbit secondary antibodies must be used to detect this antibody.

Recommended Antibody Dilutions:

Western blotting

1:1000



Western blot analysis of extracts from various cell lines using FKBP4 Antibody.

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IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

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Applications: W—Western IP—Immunoprecipitation IHC—Immunohistochemistry ChIP—Chromatin Immunoprecipitation IF—Immunofluorescence F—Flow cytometry E-P—ELISA-Peptide Species Cross-Reactivity: H—human M—mouse R—rat Hm—hamster Mk—monkey Mi—mink C—chicken Dm—D. melanogaster X—Xenopus Z—zebrafish B—bovine Dg—dog Pg—pig Sc—S. cerevisiae Ce—C. elegans Hr—Horse All—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.