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FKBP5 Antibody

For Research Use Only. Not for Use in Diagnostic Procedures.

Applications: W	Reactivity: H M Mk	Sensitivity: Endogenous	MW (kDa): 51	Source/Isotype: Rabbit	UniProt ID: #Q13451	Entrez-Gene Id: 2289
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Product Usage Information

Application

Western Blotting

Dilution

1:1000

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.

Specificity/Sensitivity

FKBP5 Antibody recognizes endogenous levels of total FKBP5 protein. This antibody does not cross-react with FKBP4 protein.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the amino terminus of human FKBP5 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

FK506 binding protein 51 (FKBP51, also called FKBP5) belongs to the FKBP family of immunophilins (1). FKBP family proteins contain FK domains and TPR (tetratricopeptide repeat) domains. The FK domains are responsible for PPIase (peptidylprolyl isomerase) activity and allow binding to FK506 and rapamycin (2,3). The C terminal TPR domains are involved in protein-protein interactions. The TPR domain of FKBP5 mediates binding to HSP90 complexes (4), as well as glucocorticoid, androgen, and progesterone receptors, which account for its regulatory role in steroid hormone receptor function (5). FKBP5 also binds to IKKα and is involved in NF-κB signaling (6,7). In addition, FKBP5 was identified as a negative regulator of Akt through promotion of Akt - PHLPP interaction and enhanced dephosphorylation of Akt (8).

Background References

1. Avilés, A. et al. (1995) *Clin Oncol (R Coll Radiol)* 7, 97-101.
2. Fruman, D.A. et al. (1994) *FASEB J* 8, 391-400.
3. Fix, M.L. et al. (2008) *Blood Press Monit* 13, 199-203.
4. Scheufler, C. et al. (2000) *Cell* 101, 199-210.
5. Schülke, J.P. et al. (2010) *PLoS One* 5, e11717.
6. Bouwmeester, T. et al. (2004) *Nat Cell Biol* 6, 97-105.
7. Avellino, R. et al. (2005) *Blood* 106, 1400-6.
8. Pei, H. et al. (2009) *Cancer Cell* 16, 259-66.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

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

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **M:** Mouse **Mk:** Monkey

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