

#12210 Store at -20C

**FKBP5 (D5G2) Rabbit mAb****Cell Signaling**  
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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
WB, IP	H M R Mk	Endogenous	51	Rabbit IgG	#Q13451	2289

**Product Usage Information****Application**Western Blotting  
Immunoprecipitation**Dilution**1:1000  
1:50**Storage**

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at -20°C. Do not aliquot the antibody.

**Specificity / Sensitivity**

FKBP5 (D5G2) Rabbit mAb recognizes endogenous levels of total FKBP5 protein. This antibody does not cross-react with FKBP4 protein.

**Source / Purification**

Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Arg222 of human FKBP5 protein.

**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 nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

**Applications Key****WB:** Western Blotting **IP:** Immunoprecipitation**Cross-Reactivity Key**

**H:** human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **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  
**GP:** Guinea Pig **Rab:** rabbit **All:** all species expected

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