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FKBP51 Antibody
FKBP51 Antibody, Clone Hi51B
Catalog # ASM10055

Specification

FKBP51 Antibody - Product Information

Application	**WB, ICC**
Primary Accession	Q13451
Other Accession	NP_001139247.1
Host	**Mouse**
Isotype	**IgG**
Reactivity	**Human, Mouse, Rat, Rabbit, Hamster, Dog**
Clonality	**Monoclonal**

Description
Mouse Anti-Human FKBP51 Monoclonal IgG

Target/Specificity
Detects ~51kDa.

Other Names
AIG6 Antibody, FK506 binding protein 5 Antibody, FKBP5 Antibody, FKBP54 Antibody, HSP90 binding immunophilin Antibody, p54 Antibody, Pplase Antibody, Ptg10 Antibody, Rotamase Antibody, T cekk FK506 binding protein Antibody

Immunogen
Synthetic peptide corresponding to the residues of human FKBP51

Purification
Protein G Purified

Storage	**-20ºC**

Storage Buffer
PBS, 50% glycerol, 0.09% sodium azide

Shipping Temperature	**Blue Ice or 4ºC**

Certificate of Analysis
A 1:2000 dilution was sufficient for detection of FKBP51 in ~50 µg total protein using WB analysis.

Cellular Localization
Cytoplasm | Nucleus

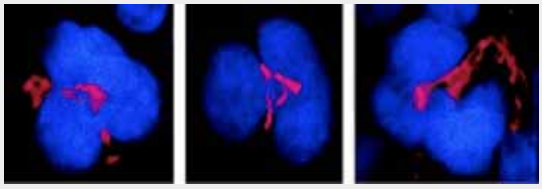
FKBP51 Antibody - Protocols

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

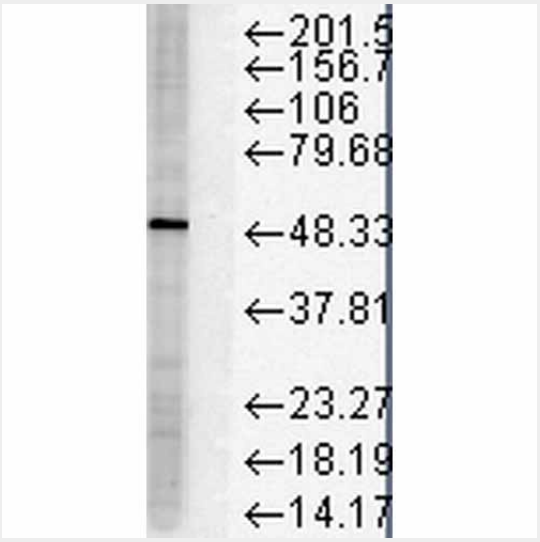
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry

- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

FKBP51 Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-FKBP51 Monoclonal Antibody, Clone Hi51B (ASM10055). Tissue: MK cells. Species: Mouse. Primary Antibody: Mouse Anti-FKBP51 Monoclonal Antibody (ASM10055) at 1:1000. Secondary Antibody: APC Goat Anti-Mouse (red). Counterstain: DAPI (blue) nuclear stain. Courtesy of: the Hospital Henri Mondor, France.



Western Blot analysis of Human HeLa cell lysates showing detection of FKBP51 protein using Mouse Anti-FKBP51 Monoclonal Antibody, Clone Hi51B (ASM10055). Load: 15 µg. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-FKBP51 Monoclonal Antibody (ASM10055) at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

FKBP51 Antibody - Background

HSP90 is crucial to cellular signaling by its regulation of the folding, activity, and stability of a wide range of client proteins. These client protein complexes may also contain one or more cochaperones (1). One class of HSP90-binding cochaperone is composed of proteins with a characteristic tetratricopeptide repeat (TPR) domain that forms an HSP90 binding site. Among the TPR cochaperones of HSP90 are Hop/Sti1, protein phosphatase PP5, and members of both the FK506- and cyclosporin A-binding families of immunophilins (2). FK506-binding protein 51 (FKBP51) and FKBP52 are large molecular weight immunophilins that are part of the mature glucocorticoid receptor (GR) heterocomplex (3).
The N terminal domain of each protein binds FK506 and has peptidyl-prolyl isomerase (PPIase) activity that converts prolyl peptide bonds within target proteins from cis- to trans- proline. The C-terminal domains contain the TPR repeats involved in protein-protein interactions with the HSP90 (4). Although FKBP52 and FKBP51 share ~75% sequence similarity, they affect hormone binding by glucocorticoid receptor in opposing manners and have different HSP90-binding characteristics (3).

FK506 binding protein 51 kDa (FKBP51 or otherwise referred to as FKBP54) has been identified as a progestininducible gene. This protein is predominantly expressed in murine T cells but in humans, it is abundantly expressed in numerous tissues at levels many times higher than FKBP12. The FKBP51 gene is known to be induced by glucocorticoids (5).

FKBP51 Antibody - References

1. Cheung-Flynn J., Roberts P.J., Riggs D.L., and Smith D.F.(2003) J. Biol. Chem. 278(19): 17388-17394.
2. Davies T.H., Ning Y.N., and Sanchez E.R. (2002) J Biol. Chem. 277 (7): 4597-4600.
3. Wu B. et al. (2004) Proc. Natl. Acad. Sci. USA. 101(22): 8348-8353.
4. Denny W.B., Prapapanich V., Smith D.F., and Scammell J.G. (2005) Endocrinology 146(7): 3194-3201.
5. Hubler T.R. et al. (2003) Endocrinology 144(6): 2380- 2387.