

# Produktinformation



Forschungsprodukte & Biochemikalien
Zellkultur & Verbrauchsmaterial
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Laborgeräte & Service

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# Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

## SZABO-SCANDIC HandelsgmbH

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## Anti-FKBP51 Antibody [Hi51B]

Mouse Anti-Human FKBP51 Monoclonal IgG Catalog No. SMC-138



## Overview

FKBP51 Antibody Description	
Description	
Mouse Anti-Human FKBP51 Monoclonal IgG	
Species Reactivity	
Dog, Human, Mouse, Rat, Hamster, Rabbit	
Applications	
WB, ICC/IF	
Antibody Dilution	
WB (1:2000), ICC/IF (1:1000); optimal dilutions for assays should be determined by the user.	
Host Species	
Mouse	
Immunogen Species	
Human	
Immunogen	
Synthetic peptide corresponding to the residues of human FKBP51	
Concentration	
1 mg/ml	
Conjugates	
Alkaline Phosphatase, APC, ATTO 390, ATTO 488, ATTO 565, ATTO 594, ATTO 633, ATTO 655, ATTO 680, ATTO 700, Biotin, FITC, PE/ATTO 594, PerCP, RPE, Streptavidin, Unconjugated	HRP,
Properties	

## Storage Buffer

PBS, 50% glycerol, 0.09% sodium azide

## Storage Temperature

-20°C

## Shipping Temperature

Blue Ice or 4°C

Purification

Protein G Purified
Clonality
Monoclonal
Clone Number
Hi51B
Isotype
lgG
Specificity
Detects ~51kDa.
Cite This Product
Mouse Anti-Human FKBP51 Monoclonal, Clone Hi51B (StressMarq Biosciences Inc., Victoria BC CANADA, Catalog # SMC-138)
Certificate Of Analysis

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

## **Biological Description**

### **Alternative 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

Research Areas
Cancer, Heat Shock, Cell Signaling, Trafficking
Cellular Localization
Cytoplasm, Nucleus
Accession Number
NP_001139247.1
Gene ID
2289
Swiss Prot
Q13451

### Scientific 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).

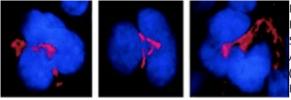
FK506 binding protein 51 kDa (FKBP51 or otherwise referred to as FKBP54) has been identified as a progestininducible gene. This

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).

#### 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.

## **Product Images**



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-FKBP51 Monoclonal Antibody, Clone Hi51B (SMC-138). Tissue: MK cells. Species: Mouse. Primary Antibody: Mouse Anti-FKBP51 Monoclonal Antibody (SMC-138) at 1:1000. Secondary Antibody: APC Goat Anti-Mouse (red). Counterstain: DAPI (blue) nuclear stain. Courtesy of: the Hospital Henri Mondor, France.

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Western Blot analysis of Human HeLa cell lysates showing detection of FKBP51 protein using Mouse Anti-FKBP51 Monoclonal Antibody, Clone Hi51B (SMC-138). Load: 15 µg protein. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-FKBP51 Monoclonal Antibody (SMC-138) at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

## **Product Citations (1)**

#### Western Blot

Endothelial glucocorticoid receptor promoter methylation according to dexamethasone sensitivity.

Mata-Greenwood, E. et al. -2015 J Mol Endocrinol. pii: JME-15-0124.

PubMed ID: 26242202 Reactivity: Human Applications: Western Blot

## Reviews

Based on validation through cited publications.

StressMarq Biosciences June 14, 2016:

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