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Anti-FKBP52 Monoclonal Antibody

Catalog Number: M02165-1

About FKBP52

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).

Overview

Product Name	Anti-FKBP52 Monoclonal Antibody
Reactive Species	Dog, Hamster, Human, Mouse, Rat
Description	Boster Bio Anti-FKBP52 Monoclonal Antibody catalog # M02165-1. Tested in IP, IF, IHC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	IP, IF, IHC, ICC, WB
Clonality	Monoclonal Hi52C
Formulation	PBS, 50% glycerol, 0.09% sodium azide
Storage Instructions	Store at -20°C for one year. Avoid repeated freeze-thaw cycles.
Host	Mouse
Uniprot ID	Q02790

Technical Details

Immunogen	Synthetic peptide corresponding to the residues of human FKBP52
Predicted Reactive Species	Chimpanzee, Hamster
Cross Reactivity	Detects ~52kDa. Heavy chain migrates close to FKBP52 on SDS PAGE.
Isotype	IgG2a

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Form	liquid
Concentration	1 mg/ml
Purification	Protein G Purified
Suggested Dilutions	Dilute the sample so that the expected range of concentrations fall within the detection range of this kit. If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples. Some PubMed article(s) citing the expression level of this target are as follows: Boster Bio's internal QC testing used: WB (1:2000), IHC (1:250), ICC/IF (1:1000), IP (5μg); optimal dilutions for assays should be determined by the user.

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Anti-FKBP52 Monoclonal Antibody (M02165-1) Images

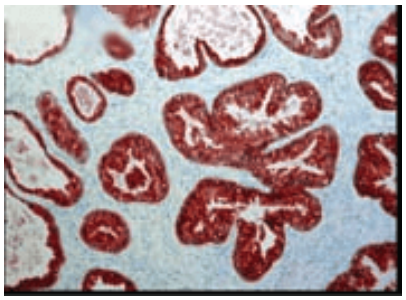
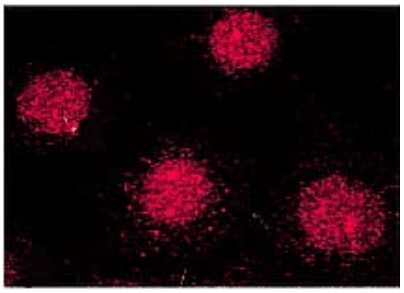


Figure 1. IHC analysis of FKBP4 using anti-FKBP4 antibody (M02165-1).
FKBP4 was detected in paraffin-embedded section. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-FKBP4 Antibody (M02165-1) overnight at 4°C. Biotinylated goat anti Mouse IgG antibody was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1021) with DAB as the chromogen.



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-FKBP52 Monoclonal Antibody, Clone Hi52C (M02165-1) . Tissue: MCF-7 cells (metastatic mammary gland/breast cell line) . Species: Human. Primary Antibody: Mouse Anti-FKBP52 Monoclonal Antibody (M02165-1) at 1:1000. Secondary Antibody: APC Goat Anti-Mouse (red) . Courtesy of: Tom Ratajczak, Univ. of W. Australia.

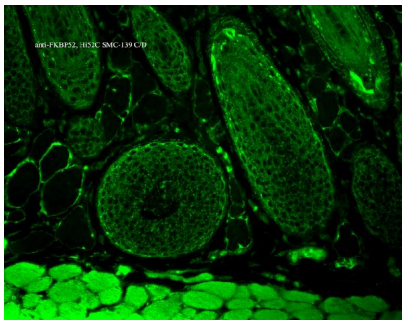


Figure 2. IHC analysis of FKBP4 using anti-FKBP4 antibody (M02165-1).
FKBP4 was detected in paraffin-embedded section. Heat mediated antigen retrieval was performed in citrate buffer (pH6, epitope retrieval solution) for 20 mins. The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1ug/ml rabbit anti-FKBP4 Antibody (M02165-1) overnight at 4°C. Biotinylated goat anti Mouse IgG antibody was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Strepavidin-Biotin-Complex (SABC)(Catalog # SA1021) with DAB as the chromogen.

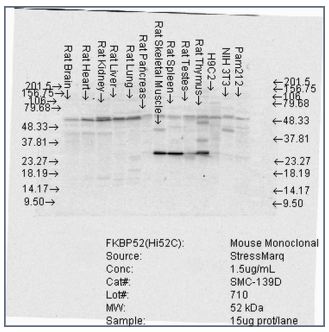


Figure 3. Western blot analysis of FKBP4 using anti-FKBP4 antibody (M02165-1).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-FKBP4 antigen affinity purified polyclonal antibody (Catalog # M02165-1) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-Mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection

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(ECL) kit (Catalog # SA1021) with Tanon 5200 system. A specific band was detected for FKBP4.

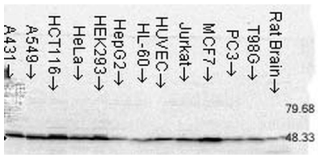

Figure 5. Western blot analysis of FKBP4 using anti-FKBP4 antibody (M02165-1).
Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 50ug of sample under reducing conditions.
After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA for 50-90 minutes. Blocked the membrane with 5% Non-fat Milk/ TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-FKBP4 antigen affinity purified polyclonal antibody (Catalog # M02165-1) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-Mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # SA1021) with Tanon 5200 system. A specific band was detected for FKBP4.

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