Datasheet for ABIN361687

anti-FKBP4 antibody

6 Images

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Overview

Quantity:	100 µg
Target:	FKBP4
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This FKBP4 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunoprecipitation (IP), Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Immunogen:	Synthetic peptide corresponding to the residues of human FKBP52
Clone:	Hi52C
Isotype:	IgG2a
Specificity:	Detects ~52 kDa. Heavy chain migrates close to FKBP52 on SDS PAGE.
Cross-Reactivity:	Dog, Hamster, Human, Mouse, Rat
Purification:	Protein G Purified

Target Details

Target:	FKBP4
Alternative Name:	FKBP52 (FKBP4 Products)

Target Details

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).
Gene ID:	2288
NCBI Accession:	NP_002005
UniProt:	Q02790
Pathways:	Intracellular Steroid Hormone Receptor Signaling Pathway

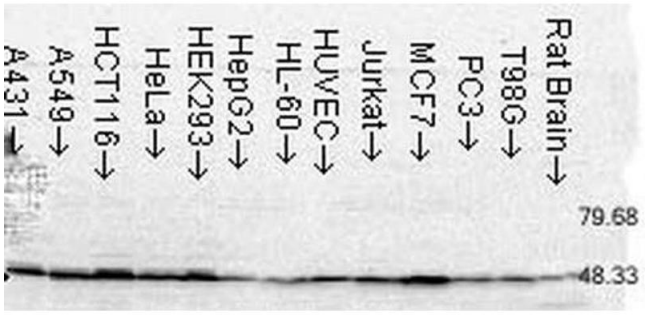
Application Details

Application Notes:	• WB (1:2000) • IHC (1:250) • ICC/IF (1:1000) • IP (5 µg) • optimal dilutions for assays should be determined by the user.
Comment:	0.5 µg/ml was sufficient for detection of FKBP52 in 20 µg total protein using WB by colorimetric immunoblot analysis using Goat Anti-Mouse IgG:HRP as the secondary.
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	1 mg/mL
Buffer:	PBS, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	-20°C

Validation report #104331 for Multiplex Immunohistochemistry (mIHC)



Western Blotting

Image 1. Western Blot analysis of Human Cell lysates showing detection of FKBP52 protein using Mouse Anti-FKBP52 Monoclonal Antibody, Clone Hi52C (ABIN361686 and ABIN361687). Load: 15 µg. Block: 1.5 % BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-FKBP52 Monoclonal Antibody (ABIN361686 and ABIN361687) at 1.5 µg/mL for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

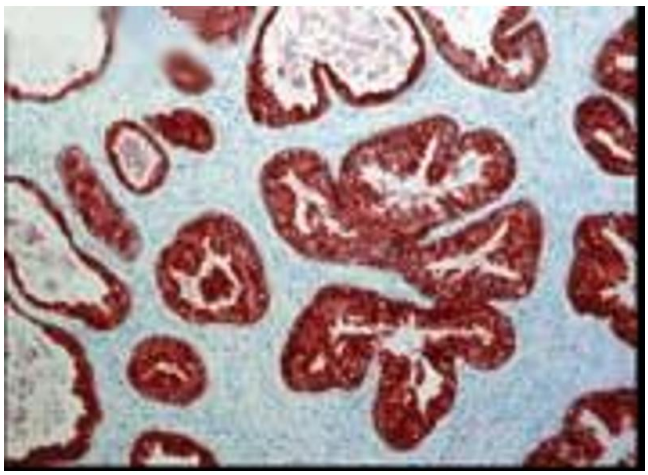
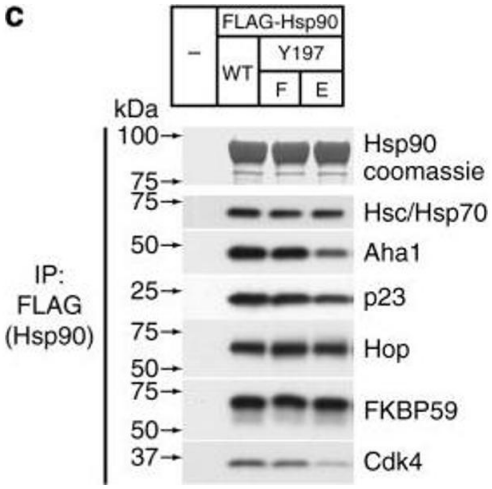


Image 2. FKBP52 (Hi52C) Prostate tissue (strong staining in ductal epithelial cells Courtesy of the Mayo Clinic.



Western Blotting

Image 3. Assembly of complexes of Cdc37 and Hsp90 phosphomimetic variants with clients and cochaperones. a Binary complex formation between Cdc37 variants and bRaf (left), and between Hsp90β variants and Cdc37 (right), followed by ITC. The corresponding Kd values are displayed in the inset. Error bars in the Kd values correspond to the errors resulted in fitting of the data into a single binding site model. b HEK-293 cells were cotransfected with indicated HA-tagged Cdc37 and FLAG-tagged bRaf plasmids. After cell lysis, proteins were immunoprecipitated with anti-FLAG resin for 1h at 4 °C with rotation. Bead pellets were washed and analyzed for Cdc37 interaction by SDS-PAGE/western blot, using anti-HA antibody. c HEK-293 cells were transfected with FLAG-tagged Hsp90, Hsp90Y197E, or Hsp90Y197F plasmids. After cell lysis, proteins were immunoprecipitated with anti-FLAG resin for 1h at 4 °C with rotation. Bead pellets were washed three times before analysis by SDS-PAGE/western blot. Co-precipitating endogenous Hsp70, Aha1, p23, Hop, Fkbp59, and Cdk4 were detected with specific antibodies. d HEK-293 cells were transfected with the indicated Hsp90, androgen receptor (AR), and glucocorticoid receptor (GR) plasmids. Proteins were precipitated with GFP-Trap resin (left) or ANTI-FLAG M2 agarose (right) for 1h at 4 °C with rotation. Bead pellets were washed three times with lysis buffer before analysis by SDS-PAGE/western blot as indicated. AR was visualized with anti-GFP antibody, GR was visualized with a specific antibody, and Hsp90 was visualized with anti-FLAG antibody - figure provided by CiteAb. Source: PMID29343704

Please check the product details page for more images. Overall 6 images are available for ABIN361687.