SANTA CRUZ BIOTECHNOLOGY, INC.

FKBP10 (D-4): sc-390538

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The immunophilins are a highly conserved family of *cis-trans* peptidyl-prolyl isomerases that bind to and mediate the effects of immunosuppressive drugs, such as cyclosporin, FK506 and rapamycin. Immunophilins have also been implicated in protein folding and trafficking within the endoplasmic reticulum (ER). FKBP10 (FK506-binding protein 10), also known as peptidyl-prolyl *cis-trans* isomerase, PPIase, Rotamase, 65 kDa FK506-binding protein or FKBP65, is a 582 amino acid immunophilin localized to the ER lumen and found in many tissues including heart, spleen, brain, testis and lung. FKBP10 contains two EF-hand calcium-binding domains and four PPIase FKBP-type domains, suggesting an enzymatic role in protein folding by catalyzing the *cis-trans* isomerization of proline imidic peptide bonds in oligopeptides. FKBP10 also acts as a receptor for the immunosuppressants FK506 and rapamycin, which inhibit FKBP10 activity. FKBP10 is thought to interact with the Raf-1/HSP 90 heterocomplex during signal transduction processes, and may associate with elastin during elastin protein folding and transport. With a valine-24 addition to human FKBP10, human and mouse FKBP10 are almost identical.

REFERENCES

1. Coss, M.C., et al. 1995. Molecular cloning, DNA sequence analysis, and biochemical characterization of a novel 65-kDa FK506-binding protein (FKBP65). J. Biol. Chem. 270: 29336-29341.
2. Coss, M.C., et al. 1998. The immunophilin FKBP65 forms an association with the serine/threonine kinase c-Raf-1. Cell Growth Differ. 9: 41-48.

CHROMOSOMAL LOCATION

Genetic locus: FKBP10 (human) mapping to 17q21.2; Fkbp10 (mouse) mapping to 11 D.

SOURCE

FKBP10 (D-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 413-437 of FKBP10 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FKBP10 (D-4) is available conjugated to agarose (sc-390538 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390538 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390538 PE), fluorescein (sc-390538 FITC), Alexa Fluor® 488 (sc-390538 AF488), Alexa Fluor® 546 (sc-390538 AF546), Alexa Fluor® 594 (sc-390538 AF594) or Alexa Fluor® 647 (sc-390538 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390538 AF680) or Alexa Fluor® 790 (sc-390538 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390538 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

FKBP10 (D-4) is recommended for detection of FKBP10 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for FKBP10 siRNA (h): sc-75019, FKBP10 siRNA (m): sc-75020, FKBP10 shRNA Plasmid (h): sc-75019-SH, FKBP10 shRNA Plasmid (m): sc-75020-SH, FKBP10 shRNA (h) Lentiviral Particles: sc-75019-V and FKBP10 shRNA (m) Lentiviral Particles: sc-75020-V.

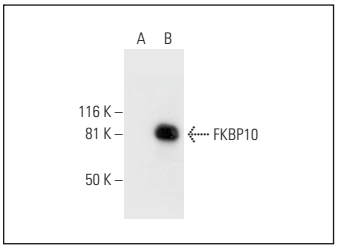
Molecular Weight of glycosylated FKBP10: 65-72 kDa.

Positive Controls: FKBP10 (h): 293 Lysate: sc-112302.

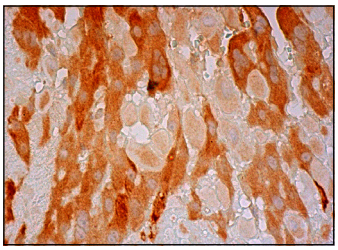
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



FKBP10 (D-4): sc-390538. Western blot analysis of FKBP10 expression in non-transfected: sc-110760 (**A**) and human FKBP10 transfected: sc-112302 (**B**) 293 whole cell lysates.



FKBP10 (D-4): sc-390538. Immunoperoxidase staining of formalin fixed, paraffin-embedded human placenta tissue showing cytoplasmic staining of decidual cells.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

RESEARCH USE

For research use only, not for use in diagnostic procedures.