SANTA CRUZ BIOTECHNOLOGY, INC.

FKBP10 (H-50): sc-98767

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, FK-506 and rapamycin. Immunophilins have also been implicated in protein folding and trafficking within the endoplasmic reticulum (ER). FKBP10 (FK-506-binding protein 10), also known as peptidyl-prolyl *cis-trans* isomerase, PPIase, rotamase, 65 kDa FK-506-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 FK-506 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 FK-506-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.
3. Davis, E.C., et al. 1998. Identification of tropoelastin as a ligand for the 65 kDa FK-506-binding protein, FKBP65, in the secretory pathway. J. Cell Biol. 140: 295-303.
4. Göthel, S.F. and Marahiel, M.A. 1999. Peptidyl-prolyl *cis-trans* isomerases, a superfamily of ubiquitous folding catalysts. Cell. Mol. Life Sci. 55: 423-436.
5. Patterson, C.E., et al. 2000. Developmental regulation of FKBP65. An ER-localized extracellular matrix binding-protein. Mol. Biol. Cell 11: 3925-3935.

CHROMOSOMAL LOCATION

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

SOURCE

FKBP10 (H-50) is a rabbit polyclonal antibody raised against amino acids 133-175 mapping within an internal region of FKBP10 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

FKBP10 (H-50) is recommended for detection of FKBP10 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

FKBP10 (H-50) is also recommended for detection of FKBP10 in additional species, including equine, canine, bovine and porcine.

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.

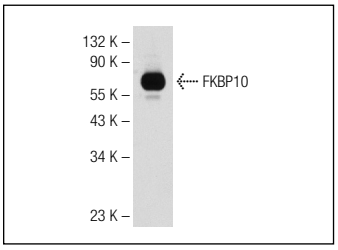
Molecular Weight of glycosylated FKBP10: 65-72 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, A-431 whole cell lysate: sc-2201 or SW-13 cell lysate: sc-24778.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



FKBP10 (H-50): sc-98767. Western blot analysis of FKBP10 expression in mouse postnatal lung tissue extract.

RESEARCH USE

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