

FKBP10 (N-12): sc-83816

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, PPlase, Rotamase, 65kDa 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 PPlase 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 hetero-complex 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.
3. Davis, E.C., et al. 1998. Identification of tropoelastin as a ligand for the 65 kD FK506-binding protein, FKBP65, in the secretory pathway. *J. Cell Biol.* 140: 295-303.
4. Göthel, S.F., et al. 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.
6. Patterson, C.E., et al. 2002. Genomic organization of mouse and human 65 kDa FK506-binding protein genes and evolution of the FKBP multigene family. *Genomics* 79: 881-889.

CHROMOSOMAL LOCATION

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

SOURCE

FKBP10 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus 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.

Blocking peptide available for competition studies, sc-83816 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FKBP10 (N-12) 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); non cross-reactive with other FKBP family members.

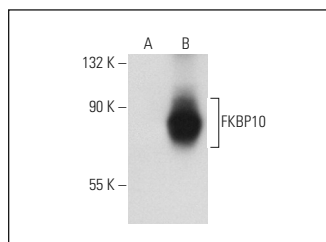
FKBP10 (N-12) is also recommended for detection of FKBP10 in additional species, including equine, canine, bovine and porcine.

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.

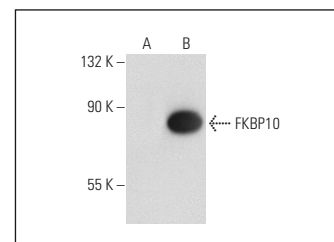
Molecular Weight of glycosylated FKBP10: 65-72 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, FKBP10 (h): 293 Lysate: sc-112302 or HeLa whole cell lysate: sc-2200.

DATA



FKBP10 (N-12): sc-83816. Western blot analysis of FKBP10 expression in non-transfected: sc-110760 (A) and human FKBP10 transfected: sc-112302 (B) 293 whole cell lysates.



FKBP10 (N-12): sc-83816. Western blot analysis of FKBP10 expression in non-transfected: sc-117752 (A) and human FKBP10 transfected: sc-125337 (B) 293T whole cell lysates.

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.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **FKBP10 (D-4): sc-390538** or **FKBP10 (25): sc-135907**, our highly recommended monoclonal alternatives to FKBP10 (N-12).