

FKBP12 (FL-108): sc-28814

BACKGROUND

Immunophilins are a highly conserved family of *cis-trans* peptidyl-prolyl isomerases which bind to and mediate the effects of immunosuppressive drugs such as Cyclosporin, FK506 and Rapamycin. The prototypic member of the family, FKBP12, was originally identified as a target of FK506 and Rapamycin activity. FKBP12 is an abundant, evolutionarily conserved cytoplasmic protein. Although the molecular role of FKBP12 activity is not well understood, the protein has been implicated as a regulator of diverse array of cellular processes including T cell activation, entry into the cell cycle and intracellular calcium release. Interestingly, FKBP12 has been shown to associate with the intracellular cytoplasmic domain of the type I TGF β receptor. This association is constitutive and not dependent on the activation of the receptor.

REFERENCES

1. Clardy, J. 1995. The chemistry of signal transduction. Proc. Natl. Acad. Sci. USA 92: 56-61.
2. Brown, E.J., et al. 1995. Control of p70 s6 kinase by kinase activity of FRAP *in vivo*. Nature 377: 441-446.
3. Cardenas, M.E., et al. 1995. Molecular mechanisms of immunosuppression by cyclosporine, FK506, and rapamycin. Curr. Opin. Nephrol. Hypertension 4: 472-477.
4. Fruman, D.A., et al. 1995. The complex of FK506-binding protein 12 and FK506 inhibits calcineurin phosphatase activity and IgE activation-induced cytokine transcripts, but not exocytosis, in mouse mast cells. J. Immunol. 154: 1846-1851.
5. Choi, J., et al. 1996. Structure of the FKBP12-rapamycin complex interacting with the binding domain of human FRAP. Science 273: 239-242.

SOURCE

FKBP12 (FL-108) is a rabbit polyclonal antibody raised against amino acids 1-108 representing full length FKBP12 of human origin.

PRODUCT

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

APPLICATIONS

FKBP12 (FL-108) is recommended for detection of FKBP12 and FKBP12.6, and to a lesser extent, FKBP13, 51 and 52 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

FKBP12 (FL-108) is also recommended for detection of FKBP12 and FKBP12.6, and to a lesser extent, FKBP13, 51 and 52 in additional species, including bovine, porcine and avian.

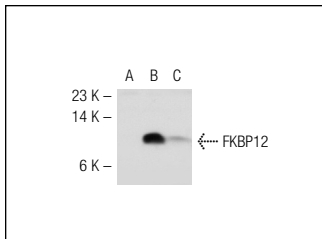
Molecular Weight of FKBP12: 12 kDa.

Positive Controls: FKBP12 (m): 293T Lysate: sc-126858, human PBL whole cell lysate or mouse brain extract: sc-2253.

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



FKBP12 (FL-108): sc-28814. Western blot analysis of FKBP12 expression in non-transfected 293T: sc-117752 (A), mouse FKBP12 transfected 293T: sc-126858 (B) and human PBL (C) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Giordano, A., et al. 2008. FK506 can activate transforming growth factor- β signalling in vascular smooth muscle cells and promote proliferation. Cardiovasc. Res. 79: 519-526.
2. Siamakpour-Reihani, S., et al. 2011. The role of calcineurin/NFAT in SFRP2 induced angiogenesis—a rationale for breast cancer treatment with the calcineurin inhibitor tacrolimus. PLoS ONE 6: e20412.

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.



Try **FKBP12 (H-5): sc-133067** or **FKBP12 (G-4): sc-136962**, our highly recommended monoclonal alternatives to FKBP12 (FL-108).