

## FKBP25 (S-15): sc-104926

### BACKGROUND

FKBP25 (FK506 binding protein 25), also known as PPlase or FKBP3, is a member of the immunophilin protein family. 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. They inhibit T cell proliferation by interrupting two specific cytoplasmic signal transmission pathways. FKBP25 is localized in the nucleus and is expressed in the brain, testis, ovary, and spleen. It may influence immunoregulation and cerebellum development, as well as protein folding and trafficking in neurons. FKBP25 associates with transcriptional repressor protein YY1 and histone deacetylases, HDAC1 and HDAC2. FKBP25 may contain several casein kinase II phosphorylation sites, which are believed to be important for cell growth regulation.

### REFERENCES

- Hung, D.T. and Schreiber, S.L. 1992. cDNA cloning of a human 25 kDa FK506 and rapamycin binding protein. *Biochem. Biophys. Res. Commun.* 184: 733-738.
- Jin, Y.J. and Burakoff, S.J. 1993. The 25 kDa FK506-binding protein is localized in the nucleus and associates with casein kinase II and nucleolin. *Proc. Natl. Acad. Sci. USA* 90: 7769-7773.
- Coss, M.C., Winterstein, D. and Simek, S.L. 1996. Molecular cloning, DNA sequence analysis, and biochemical characterization of a novel 65 kDa FK506-binding protein (FKBP65). *J. Biol. Chem.* 270: 29336-29341.
- Kitagawa, H., Hotta, Y., Fujiki, K. and Kanai, A. 1997. Cloning and high expression of rabbit FKBP25 in cornea. *Jpn. J. Ophthalmol.* 40: 133-141.
- Johnson, K.L. and Lawen, A. 1999. Rapamycin inhibits didemnin B-induced apoptosis in human HL-60 cells: evidence for the possible involvement of FK506-binding protein 25. *Immunol. Cell Biol.* 77: 242-248.
- Ahn, J., Murphy, M., Kratowicz, S., Wang, A., Levine, A.J. and George, D.L. 1999. Downregulation of the stathmin/Op18 and FKBP25 genes following p53 induction. *Oncogene* 18: 5954-5958.
- Yang, W.M., Yao, Y.L. and Seto, E. 2001. The FK506-binding protein 25 functionally associates with histone deacetylases and with transcription factor YY1. *EMBO J.* 20: 4814-4825.
- Meng, X., Chen, J., Yang, Q., Wang, S., Chao, Y., Ying, K., Xie, Y. and Mao, Y. 2002. Cloning and identification of a novel cDNA which may be associated with FKBP25. *Biochem. Genet.* 40: 303-310.
- Mas, C., Guimiot-Maloum, I., Guimiot, F., Khelfaoui, M., Nepote, V., Bourgeois, F., Boda, B., Levacher, B., Galat, A., Moalic, J.M. and Simonneau, M. 2005. Molecular cloning and expression pattern of the Fkbp25 gene during cerebral cortical neurogenesis. *Gene Expr. Patterns* 5: 577-585.

### CHROMOSOMAL LOCATION

Genetic locus: FKBP3 (human) mapping to 14q21.2; Fkbp3 (mouse) mapping to 12 C1.

### RESEARCH USE

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

### SOURCE

FKBP25 (S-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FKBP25 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-104926 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### APPLICATIONS

FKBP25 (S-15) is recommended for detection of FKBP25 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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.

FKBP25 (S-15) is also recommended for detection of FKBP25 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for FKBP25 siRNA (h): sc-92113, FKBP25 siRNA (m): sc-145192, FKBP25 shRNA Plasmid (h): sc-92113-SH, FKBP25 shRNA Plasmid (m): sc-145192-SH, FKBP25 shRNA (h) Lentiviral Particles: sc-92113-V and FKBP25 shRNA (m) Lentiviral Particles: sc-145192-V.

Molecular Weight of FKBP25: 25 kDa.

### RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

### STORAGE

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

### PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.



Try **FKBP25 (H-6): sc-374357**, our highly recommended monoclonal alternative to FKBP25 (S-15).