FKBP25 (h): 293 Lysate: sc-112220



The Power to Question

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 deaceltylases, 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.
- 2. 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., et al. 1996. Molecular cloning, DNA sequence analysis, and biochemical characterization of a novel 65-kDa FK506-binding protein (FKBP65). J. Biol. Chem. 270: 29336-29341.
- 4. Kitagawa, H., et al. 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.
- 6. Ahn, J., et al. 1999. Down-regulation of the stathmin/Op18 and FKBP25 genes following p53 induction. Oncogene 18: 5954-5958.
- 7. Yang, W.M., et al. 2001. The FK506-binding protein 25 functionally associates with histone deacetylases and with transcription factor YY1. EMBO J. 20: 4814-4825.
- 8. Meng, X., et al. 2002. Cloning and identification of a novel cDNA which may be associated with FKBP25. Biochem. Genet. 40: 303-310.
- 9. Mas, C., et al. 2005. Molecular cloning and expression pattern of the FKBP25 gene during cerebral cortical neurogenesis. Gene Expr. Patterns 5: 577-585.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

CHROMOSOMAL LOCATION

Genetic locus: FKBP3 (human) mapping to 14q21.2.

PRODUCT

FKBP25 (h): 293 Lysate represents a lysate of human FKBP25 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

APPLICATIONS

FKBP25 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive FKBP25 antibodies. Recommended use: 10-20 µl per lane.

Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-tranfected 293 cells.

RESEARCH USE

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

Santa Cruz Biotechnology, Inc. 1.800.457.3801 831.457.3800 fax 831.457.3801 Europe +00800 4573 8000 49 6221 4503 0 www.scbt.com