

## FKBP6 (N-16): sc-104249

### BACKGROUND

FKBP6 (FK506-binding protein 6), also known as rotamase, immunophilin FKBP36 and peptidyl-prolyl *cis-trans* isomerase FKBP6, is a 327 amino acid protein that, like other PPLases, accelerate the folding of proteins. As a component in synaptonemal complexes, FKBP6 is involved in homologous chromosomes pairing and male infertility in mice. There has been some suggestion that FKBP6 may play a role in modifying the susceptibility to idiopathic spermatogenic impairment in humans. Ubiquitously expressed in all tissues, FKBP6 is present at highest levels in testis, liver, kidney, skeletal muscle and heart. The gene encoding FKBP6 maps within a region of human chromosome 7 that has been implicated in Williams-Beuren syndrome, a rare developmental disorder involving abnormalities of the cardiovascular and musculoskeletal systems. Hemizygous deletion of FKBP6 may contribute to hypercalcemia and growth delay in Williams-Beuren syndrome.

### REFERENCES

1. Meng, X., et al. 1998. A novel human gene FKBP6 is deleted in Williams syndrome. *Genomics* 52: 130-137.
2. Crackower, M.A., et al. 2003. Essential role of FKBP6 in male fertility and homologous chromosome pairing in meiosis. *Science* 300: 1291-1295.
3. Metcalfe, K., et al. 2005. Autosomal dominant inheritance of Williams-Beuren syndrome in a father and son with haploinsufficiency for FKBP6. *Clin. Dysmorphol.* 14: 61-65.
4. Westerveld, G.H., et al. 2005. Mutations in the chromosome pairing gene FKBP6 are not a common cause of non-obstructive azoospermia. *Mol. Hum. Reprod.* 11: 673-675.
5. Miyamoto, T., et al. 2006. Is a genetic defect in FKBP6 a common cause of azoospermia in humans? *Cell. Mol. Biol. Lett.* 11: 557-569.
6. Online Mendelian Inheritance in Man, OMIM<sup>™</sup>. 2006. Johns Hopkins University, Baltimore, MD. MIM Number: 604839. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>

### CHROMOSOMAL LOCATION

Genetic locus: FKBP6 (human) mapping to 7q11.23; Fkbp6 (mouse) mapping to 5 G2.

### SOURCE

FKBP6 (N-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of FKBP6 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-104249 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

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

### APPLICATIONS

FKBP6 (N-16) is recommended for detection of FKBP6 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).

FKBP6 (N-16) is also recommended for detection of FKBP6 in additional species, including porcine.

Suitable for use as control antibody for FKBP6 siRNA (h): sc-89491, FKBP6 siRNA (m): sc-105355, FKBP6 shRNA Plasmid (h): sc-89491-SH, FKBP6 shRNA Plasmid (m): sc-105355-SH, FKBP6 shRNA (h) Lentiviral Particles: sc-89491-V and FKBP6 shRNA (m) Lentiviral Particles: sc-105355-V.

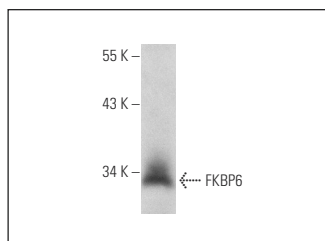
Molecular Weight of FKBP6: 36 kDa.

Positive Controls: rat kidney extract: sc-2394.

### 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<sup>™</sup> compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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 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<sup>™</sup> Mounting Medium: sc-24941.

### DATA



FKBP6 (N-16): sc-104249. Western blot analysis of FKBP6 expression in rat kidney tissue extract.

### RESEARCH USE

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

**MONOS**  
Satisfaction  
Guaranteed

Try **FKBP6 (8F10): sc-517136**, our highly recommended monoclonal alternative to FKBP6 (N-16).