

FKBP8 (N-12): sc-46333

BACKGROUND

FKBP8 (FKBP38, FK506 binding protein 8) is an immunophilin family member lacking PPlase/arotamase activity that influences immunoregulation, protein folding and trafficking in neurons associated with memory function. The FKBP38 form derives from a truncated ORF. Presenilin 1 and 2 form molecular complexes with-and promote degradation of-FKBP38, and Bcl-2, and sequester these proteins in ER/Golgi, thereby inhibiting FKBP38-mediated, γ -secretase-independent, mitochondrial targeting of Bcl-2. FKBP8 present in the central nervous system can antagonize hedgehog (HH) signaling, where HH is critical for patterning and growth of many tissues in the developing embryo. Mouse FKBP38 mRNA is present in neurons and glial cells and appears more pronounced in neurons associated with the hippocampal formation in adult mouse brains.

REFERENCES

1. Pedersen, K.M., et al. 1999. muFKBP38: a novel murine immunophilin homolog differentially expressed in Schwannoma cells and central nervous system neurons *in vivo*. Electrophoresis 20: 249-255.
2. Fong, S., et al. 2003. Functional identification of distinct sets of antitumor activities mediated by the FKBP gene family. Proc. Natl. Acad. Sci. USA 100: 14253-14258.
3. Nielsen, J.V., et al. 2004. FKBP8: novel isoforms, genomic organization and characterization of a forebrain promoter in transgenic mice. Genomics 83: 181-192.
4. Bulgakov, O.V., et al. 2004. FKBP8 is a negative regulator of mouse Sonic hedgehog signaling in neural tissues. Development 131: 2149-2159.
5. Massaad, C.A., et al. 2004. Inhibition of transcription factor activity by nuclear compartment-associated Bcl-2. J. Biol. Chem. 279: 54470-54478.
6. Wang, H.Q., et al. 2005. Interaction of presenilins with FKBP38 promotes apoptosis by reducing mitochondrial Bcl-2. Hum. Mol. Genet. 14: 1889-1902.
7. Edlich, F., et al. 2005. Bcl-2 regulator FKBP38 is activated by Ca²⁺/calmodulin. EMBO J. 24: 2688-2699.
8. Kang, C.B., et al. 2005. Molecular characterization of FK506 binding protein 38 and its potential regulatory role on the anti-apoptotic protein Bcl-2. Biochem. Biophys. Res. Commun. 337: 30-38.

CHROMOSOMAL LOCATION

Genetic locus: FKBP8 (human) mapping to 19p13.11; Fkbp8 (mouse) mapping to 8 B3.3.

SOURCE

FKBP8 (N-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of FKBP8 of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-46333 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FKBP8 (N-12) is recommended for detection of FKBP8 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).

FKBP8 (N-12) is also recommended for detection of FKBP8 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for FKBP8 siRNA (h): sc-45637, FKBP8 siRNA (m): sc-45638, FKBP8 shRNA Plasmid (h): sc-45637-SH, FKBP8 shRNA Plasmid (m): sc-45638-SH, FKBP8 shRNA (h) Lentiviral Particles: sc-45637-V and FKBP8 shRNA (m) Lentiviral Particles: sc-45638-V.

Molecular Weight of FKBP8: 53 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

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.

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.


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Try **FKBP8 (C-10): sc-166607**, our highly recommended monoclonal alternative to FKBP8 (N-12).