SANTA CRUZ BIOTECHNOLOGY, INC.

FKBP8 (h4): 293T Lysate: sc-158511

BACKGROUND

FKBP8 (FKBPr38, FK506 binding protein 8) is an immunophilin family member lacking PPIase/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 Sonic hedgehog (SHH) signaling, where SHH 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 formationin adult mouse brains.

REFERENCES

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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 Ca^{2+}/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.

PRODUCT

FKBP8 (h4): 293T Lysate represents a lysate of human FKBP8 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

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.

APPLICATIONS

FKBP8 (h4): 293T Lysate is suitable as a Western Blotting positive control for human reactive FKBP8 antibodies. Recommended use: 10-20 µl per lane.

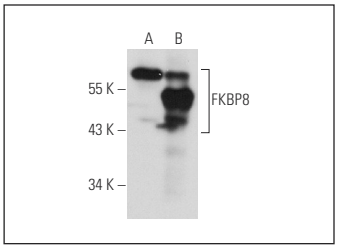
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

FKBP8 (C-10): sc-166607 is recommended as a positive control antibody for Western Blot analysis of enhanced human FKBP8 expression in FKBP8 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048.

DATA



FKBP8 (C-10): sc-166607. Western blot analysis of FKBP8 expression in non-transfected: sc-117752 (**A**) and human FKBP8 transfected: sc-158511 (**B**) 293T whole cell lysates.

RESEARCH USE

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

PROTOCOLS

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