

# FKBP8 (C-10): sc-166607

## 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,  $\gamma$ -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 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.

## CHROMOSOMAL LOCATION

Genetic locus: FKBP8 (human) mapping to 19p13.11.

## SOURCE

FKBP8 (C-10) is a mouse monoclonal antibody raised against amino acids 136-355 mapping at the C-terminus of FKBP8 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG $\gamma$  kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FKBP8 (C-10) is available conjugated to agarose (sc-166607 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166607 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166607 PE), fluorescein (sc-166607 FITC), Alexa Fluor® 488 (sc-166607 AF488), Alexa Fluor® 546 (sc-166607 AF546), Alexa Fluor® 594 (sc-166607 AF594) or Alexa Fluor® 647 (sc-166607 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166607 AF680) or Alexa Fluor® 790 (sc-166607 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

FKBP8 (C-10) is recommended for detection of FKBP8 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ g 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).

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

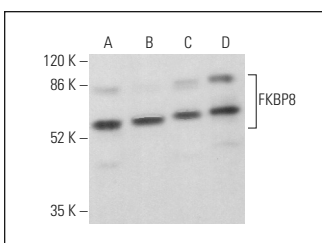
Molecular Weight of FKBP8: 53 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, COLO 205 whole cell lysate: sc-364177 or Jurkat whole cell lysate: sc-2204.

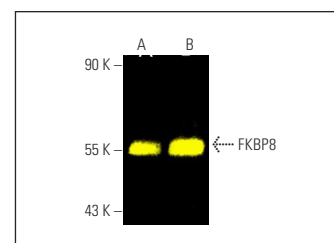
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

## DATA



FKBP8 (C-10): sc-166607. Western blot analysis of FKBP8 expression in HeLa (A), COLO 205 (B), MCF7 (C) and Jurkat (D) whole cell lysates. Detection reagent used: m-IgG $\kappa$  BP-HRP: sc-516102.



FKBP8 (C-10) Alexa Fluor® 488: sc-166607 AF488. Direct fluorescent western blot analysis of FKBP8 expression in MCF7 (A) and Jurkat (B) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214.

## SELECT PRODUCT CITATIONS

1. Deleersnijder, A., et al. 2011. Comparative analysis of different peptidyl-prolyl isomerases reveals FK506-binding protein 12 as the most potent enhancer of  $\alpha$ -synuclein aggregation. J. Biol. Chem. 286: 26687-26701.

## STORAGE

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

## RESEARCH USE

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