SANTA CRUZ BIOTECHNOLOGY, INC.

FKBP2 (D-9): sc-390753

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

FKBP2 (FK506-binding protein 2), also known as PPIase (peptidyl-prolyl *cis-trans* isomerase) and FKBP13 (13 kDa FKBP), is a 142 amino acid enzyme that accelerates the folding of proteins. Specifically, FKBP2 catalyzes the *cis-trans* isomerization of imidic peptide bonds in oligopeptides. Localized to the endoplasmic reticular membrane, FKBP2 is predominantly expressed in thymus and T-cells. FKBP2 is an immunophilin, an intracellular receptor that is inhibited by immunosuppressant drugs such as FK506 and rapamycin. BIG1, a guanine nucleotide exchange factor, and the C-terminus of 4.1G, a protein that stabilizes spectrin-Actin binding, interact with FKBP2. The gene encoding FKBP2 maps to human chromosome 11, which houses over 1,400 genes and comprises nearly 4% of the human genome. Jervell and Lange-Nielsen syndrome, Jacobsen syndrome, Niemann-Pick disease, hereditary angioedema and Smith-Lemli-Opitz syndrome are associated with defects in genes that maps to chromosome 11.

REFERENCES

1. Jin, Y.J., et al. 1991. Molecular cloning of a membrane-associated human FK506- and rapamycin-binding protein, FKBP-13. Proc. Natl. Acad. Sci. USA 88: 6677-6681.
2. DiLella, A.G., et al. 1992. Chromosomal band assignments of the genes encoding human FKBP12 and FKBP13. Biochem. Biophys. Res. Commun. 189: 819-823.

CHROMOSOMAL LOCATION

Genetic locus: FKBP2 (human) mapping to 11q13.1; Fkbp2 (mouse) mapping to 19 A.

SOURCE

FKBP2 (D-9) is a mouse monoclonal antibody raised against amino acids 79-142 mapping at the C-terminus of FKBP2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FKBP2 (D-9) is available conjugated to agarose (sc-390753 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-390753 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390753 PE), fluorescein (sc-390753 FITC), Alexa Fluor® 488 (sc-390753 AF488), Alexa Fluor® 546 (sc-390753 AF546), Alexa Fluor® 594 (sc-390753 AF594) or Alexa Fluor® 647 (sc-390753 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390753 AF680) or Alexa Fluor® 790 (sc-390753 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

FKBP2 (D-9) is recommended for detection of FKBP2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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), immunohistochemistry (including paraffin-embedded sections) (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 FKBP2 siRNA (h): sc-96608, FKBP2 siRNA (m): sc-145191, FKBP2 shRNA Plasmid (h): sc-96608-SH, FKBP2 shRNA Plasmid (m): sc-145191-SH, FKBP2 shRNA (h) Lentiviral Particles: sc-96608-V and FKBP2 shRNA (m) Lentiviral Particles: sc-145191-V.

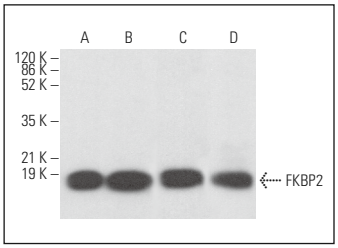
Molecular Weight of FKBP2: 13-16 kDa.

Positive Controls: IMR-32 cell lysate: sc-2409, COLO 205 whole cell lysate: sc-364177 or NIH/3T3 whole cell lysate: sc-2210.

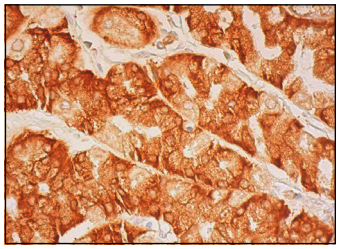
RECOMMENDED SUPPORT REAGENTS

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



FKBP2 (D-9): sc-390753. Western blot analysis of FKBP2 expression in IMR-32 (**A**), COLO 205 (**B**) and NIH/3T3 (**C**) whole cell lysates and human brain tissue extract (**D**).



FKBP2 (D-9): sc-390753. Immunoperoxidase staining of formalin fixed, paraffin-embedded human upper stomach tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Villeneuve, J., et al. 2016. Golgi enzymes do not cycle through the endoplasmic reticulum during protein secretion or mitosis. Mol. Biol. Cell 28: 141-151.

RESEARCH USE

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