

FKBP11 (D-3): sc-398700

BACKGROUND

The immunophilins are a highly conserved family of *cis-trans* peptidyl-prolyl isomerases that bind to and mediate the effects of immunosuppressive drugs, such as cyclosporin, FK506 and rapamycin. Immunophilins have also been implicated in protein folding and trafficking within the endoplasmic reticulum (ER). FKBP11 (FK506-binding protein 11), also known as FKBP19 or peptidyl-prolyl *cis-trans* isomerase FKBP11, is a 201 amino acid single-pass membrane protein belonging to the FKBP-type PPIase family, a group of proteins known to catalyze the folding of proline-containing polypeptides. Containing one PPIase FKBP-type domain, FKBP11 is expressed in secretory tissues such as pancreas, pituitary, stomach, lymph node and salivary gland, and is encoded by a gene that maps to human chromosome 12q13.12. FK506 and rapamycin are known to inhibit FKBP11's peptidyl-prolyl isomerase activity.

REFERENCES

- Galat, A. 1993. Peptidylproline *cis-trans*-isomerases: immunophilins. Eur. J. Biochem. 216: 689-707.
- Göthel, S.F. and Marahiel, M.A. 1999. Peptidyl-prolyl *cis-trans* isomerases, a superfamily of ubiquitous folding catalysts. Cell. Mol. Life Sci. 55: 423-436.
- Breiman, A. and Camus, I. 2002. The involvement of mammalian and plant FK506-binding proteins (FKBPs) in development. Transgenic Res. 11: 321-335.

CHROMOSOMAL LOCATION

Genetic locus: FKBP11 (human) mapping to 12q13.12; Fkbp11 (mouse) mapping to 15 F1.

SOURCE

FKBP11 (D-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 65-91 within an internal region of FKBP11 of human origin.

PRODUCT

Each vial contains 200 µg IgG₃ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FKBP11 (D-3) is available conjugated to agarose (sc-398700 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398700 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398700 PE), fluorescein (sc-398700 FITC), Alexa Fluor® 488 (sc-398700 AF488), Alexa Fluor® 546 (sc-398700 AF546), Alexa Fluor® 594 (sc-398700 AF594) or Alexa Fluor® 647 (sc-398700 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398700 AF680) or Alexa Fluor® 790 (sc-398700 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398700 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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RESEARCH USE

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

APPLICATIONS

FKBP11 (D-3) is recommended for detection of FKBP11 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for FKBP11 siRNA (h): sc-75021, FKBP11 siRNA (m): sc-75022, FKBP11 shRNA Plasmid (h): sc-75021-SH, FKBP11 shRNA Plasmid (m): sc-75022-SH, FKBP11 shRNA (h) Lentiviral Particles: sc-75021-V and FKBP11 shRNA (m) Lentiviral Particles: sc-75022-V.

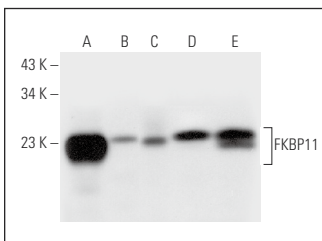
Molecular Weight of FKBP11: 22 kDa.

Positive Controls: mouse pancreas extract: sc-364244, Raji whole cell lysate: sc-364236 or Jurkat whole cell lysate: sc-2204.

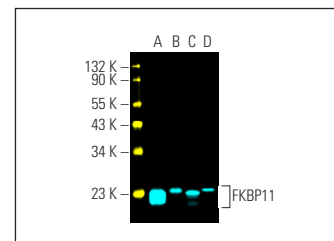
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-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.

DATA



FKBP11 (D-3): sc-398700. Western blot analysis of FKBP11 expression in mouse pancreas (A), human spleen (B) and mouse spleen (C) tissue extracts and Raji (D) and Jurkat (E) whole cell lysates.



FKBP11 (D-3) Alexa Fluor® 647: sc-398700 AF647. Direct fluorescent western blot analysis of FKBP11 expression in mouse pancreas tissue extract (A) and Ramos (B), MM-142 (C) and Raji (D) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Cruz Marker™ Molecular Weight Standards detected with Cruz Marker™ MW Tag-Alexa Fluor® 488: sc-516790.

SELECT PRODUCT CITATIONS

- Herrema, H., et al. 2022. FKBP11 rewires UPR signaling to promote glucose homeostasis in type 2 diabetes and obesity. Cell Metab. 34: 1004-1022.e8.

STORAGE

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