

FBP21 (N-16): sc-84249

BACKGROUND

WW domains mediate protein-protein interactions through binding to short proline-rich motifs within their respective ligands. The WW domain is composed of approximately 40 amino acids that fold as a stable, triple stranded β -sheet without disulfide bridges or cofactors. Proteins containing the WW domain are found in a wide range of signaling proteins, which can be localized within the cytoplasm or the nucleus. FBP21, also known as WW domain-binding protein 4, is a 376 amino acid protein that contains 2 WW domains and is characterized as a spliceosome-associated protein. FBP21 localizes to nucleus speckles and is thought to play a role in cross-intron bridging of U1 and U2 snRNPs in the mammalian A complex. Specifically, FBP21 interacts via its WW domains with the proline-rich domain of Sam 68 and also binds splicing factors Sm B/B', hnRNP C1/C2 and splicing factor 1.

REFERENCES

1. Sudol, M., Chen, H.I., Bougeret, C., Einbond, A. and Bork, P. 1995. Characterization of a novel protein-binding module-the WW domain. *FEBS Lett.* 369: 67-71.
2. Einbond, A. and Sudol, M. 1996. Towards prediction of cognate complexes between the WW domain and proline-rich ligands. *FEBS Lett.* 384: 1-8.
3. Bedford, M.T., Reed, R. and Leder, P. 1998. WW domain-mediated interactions reveal a spliceosome-associated protein that binds a third class of proline-rich motif: the proline glycine and methionine-rich motif. *Proc. Natl. Acad. Sci. USA* 95: 10602-10607.
4. Bedford, M.T., Sarbassova, D., Xu, J., Leder, P. and Yaffe, M.B. 2000. A novel pro-Arg motif recognized by WW domains. *J. Biol. Chem.* 275: 10359-10369.
5. Bedford, M.T., Frankel, A., Yaffe, M.B., Clarke, S., Leder, P. and Richard, S. 2000. Arginine methylation inhibits the binding of proline-rich ligands to Src homology 3, but not WW, domains. *J. Biol. Chem.* 275: 16030-16036.
6. Sudol, M., Sliwa, K. and Russo, T. 2001. Functions of WW domains in the nucleus. *FEBS Lett.* 490: 190-195.

CHROMOSOMAL LOCATION

Genetic locus: WBP4 (human) mapping to 13q14.11; Wbp4 (mouse) mapping to 14 D3.

SOURCE

FBP21 (N-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of FBP21 of human origin.

PRODUCT

Each vial contains 100 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-84249 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

FBP21 (N-16) is recommended for detection of FBP21 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

FBP21 (N-16) is also recommended for detection of FBP21 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for FBP21 siRNA (h): sc-75004, FBP21 siRNA (m): sc-145096, FBP21 shRNA Plasmid (h): sc-75004-SH, FBP21 shRNA Plasmid (m): sc-145096-SH, FBP21 shRNA (h) Lentiviral Particles: sc-75004-V and FBP21 shRNA (m) Lentiviral Particles: sc-145096-V.

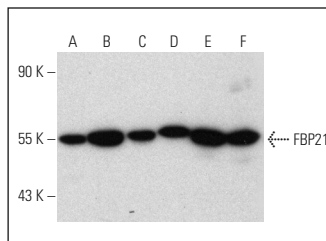
Molecular Weight of FBP21: 43 kDa.

Positive Controls: K-562 nuclear extract: sc-2130, Jurkat nuclear extract: sc-2132 or NIH/3T3 nuclear extract: sc-2138.

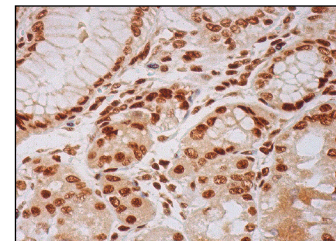
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



FBP21 (N-16): sc-84249. Western blot analysis of FBP21 expression in SK-MEL-28 (A), Jurkat (B), NIH/3T3 (C), KNRK (D) and K-562 (E) nuclear extracts and HEK293 whole cell lysate (F).



FBP21 (N-16): sc-84249. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lower stomach tissue showing nuclear staining of glandular cells.

STORAGE

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