

3BP1 (A-5): sc-376720

BACKGROUND

3BP1 (SH3 domain-binding protein 1) is a 701 amino acid protein with sequence similarity to the COOH-terminal segment of Bcr. This similarity suggests 3BP1 has GTPase-activating protein (GAP) activity for Rac-related proteins. 3BP1 also binds to the SH3 domains of signal transduction pathway proteins, with preference for SRC-1 and GRB2. 3BP1 has also been found to inhibit PDGF-induced membrane ruffling mediated by Rac. Expressed as two isoforms produced by alternative splicing, 3BP1 contains one BAR domain and one Rho-GAP domain.

REFERENCES

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2. Zhang, B. and Zheng, Y. 1998. Regulation of RhoA GTP hydrolysis by the GTPase-activating proteins p190, p50RhoGAP, Bcr, and 3BP-1. *Biochemistry* 37: 5249-5257.
3. Västrik, I., Eickholt, B.J., Walsh, F.S., Ridley, A. and Doherty, P. 1999. Sema3A-induced growth-cone collapse is mediated by Rac1 amino acids 17-32. *Curr. Biol.* 9: 991-998.
4. So, C.W., So, C.K., Cheung, N., Chew, S.L., Sham, M.H. and Chan, L.C. 2000. The interaction between EEN and Abi-1, two MLL fusion partners, and synaptojanin and dynamin: implications for leukaemogenesis. *Leukemia* 14: 594-601.
5. Scott, M.P., Zappacosta, F., Kim, E.Y., Annan, R.S. and Miller, W.T. 2002. Identification of novel SH3 domain ligands for the Src family kinase Hck. Wiskott-Aldrich syndrome protein (WASP), WASP-interacting protein (WIP), and ELM01. *J. Biol. Chem.* 277: 28238-28246.

CHROMOSOMAL LOCATION

Genetic locus: SH3BP1 (human) mapping to 22q13.1; Sh3bp1 (mouse) mapping to 15 E1.

SOURCE

3BP1 (A-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 317-351 within an internal region of 3BP1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-376720 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

STORAGE

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

APPLICATIONS

3BP1 (A-5) is recommended for detection of 3BP1 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 3BP1 siRNA (h): sc-77021, 3BP1 siRNA (m): sc-108929, 3BP1 shRNA Plasmid (h): sc-77021-SH, 3BP1 shRNA Plasmid (m): sc-108929-SH, 3BP1 shRNA (h) Lentiviral Particles: sc-77021-V and 3BP1 shRNA (m) Lentiviral Particles: sc-108929-V.

Molecular Weight of 3BP1 isoform 1: 76 kDa.

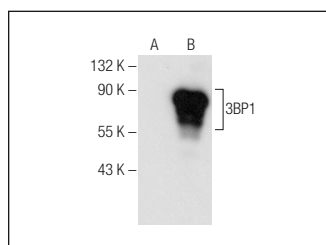
Molecular Weight of 3BP1 isoform 2: 51 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, 3BP1 (m): 293T Lysate: sc-117985 or 3BP1 (h): 293T Lysate: sc-174773.

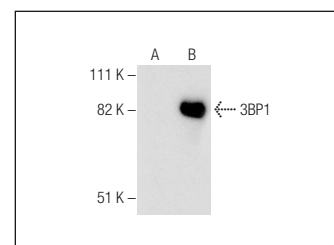
RECOMMENDED SUPPORT REAGENTS

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



3BP1 (A-5): sc-376720. Western blot analysis of 3BP1 expression in non-transfected: sc-117752 (A) and mouse 3BP1 transfected: sc-117985 (B) 293T whole cell lysates.



3BP1 (A-5): sc-376720. Western blot analysis of 3BP1 expression in non-transfected: sc-117752 (A) and human 3BP1 transfected: sc-174773 (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.