

# 3BP2 (470): sc-100640

## BACKGROUND

3BP2 is a Syk family kinase-interacting protein (SKIP) that is expressed in spleen and peripheral blood leukocytes. 3BP2 was originally characterized as an Abl SH3-interacting protein, as it contains a single proline-rich domain and an SH2 domain, consistent with other adaptor molecules. In Jurkat T cells transfected with 3BP2, stimulation of T cell receptors (TCR) rapidly induces the redistribution of 3BP2 from the cytoplasm to the membrane, where it associates with the TCR protein tyrosine kinase complexes. Through this translocation, 3BP2 is able to selectively bind to Flt3/Fik2 receptors and to the phosphorylated Syk, LAT and ZAP-70 proteins. In T lymphocytes, the overexpression of 3BP2, specifically the overexpression of the SH2 and proline rich domains, is sufficient to induce the activation of several transcription factors, including NFAT and AP-1. This transactivation results in the upregulation of the IL-2 gene promoter and suggests a role for 3BP2 in mediating T cell signaling.

## REFERENCES

1. Ren, R., et al. 1993. Identification of a ten-amino acid proline-rich SH3 binding site. *Science* 259: 1157-1161.
2. Songyang, Z., et al. 1994. Specific motifs recognized by the SH2 domains of Csk, 3BP2, Fps/Fes, GRB2, HCP, Shc, Syk, and Vav. *Mol. Cell Biol.* 14: 2777-2785.

## CHROMOSOMAL LOCATION

Genetic locus: SH3BP2 (human) mapping to 4p16.3; Sh3bp2 (mouse) mapping to 5 B2.

## SOURCE

3BP2 (470) is a mouse monoclonal antibody raised against recombinant 3BP2 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2a</sub> in 1.0 ml PBS with < 0.1% sodium azide and 0.1% gelatin.

## APPLICATIONS

3BP2 (470) is recommended for detection of 3BP2 of mouse and human origin by Western Blotting (starting dilution 1:200, 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 3BP2 siRNA (h): sc-40289, 3BP2 siRNA (m): sc-40290, 3BP2 shRNA Plasmid (h): sc-40289-SH, 3BP2 shRNA Plasmid (m): sc-40290-SH, 3BP2 shRNA (h) Lentiviral Particles: sc-40289-V and 3BP2 shRNA (m) Lentiviral Particles: sc-40290-V.

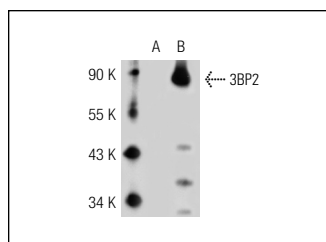
Molecular Weight of 3BP2: 85 kDa.

Positive Controls: 3BP2 (h): 293T Lysate: sc-113954, COLO 320DM cell lysate: sc-2226 or A-431 whole cell lysate: sc-2201.

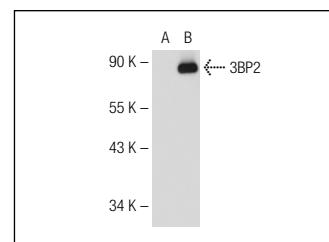
## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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-mouse IgG-FITC: sc-2010 (dilution range: 1:100-1:400) or goat anti-mouse IgG-TR: sc-2781 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

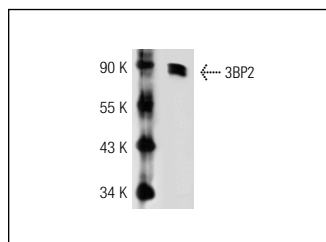
## DATA



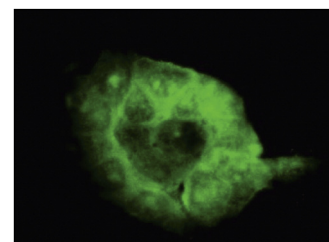
3BP2 (470): sc-100640. Western blot analysis of 3BP2 expression in non-transfected: sc-117752 (A) and human 3BP2 transfected: sc-113954 (B) 293T whole cell lysates.



3BP2 (470): sc-100640. Western blot analysis of 3BP2 expression in non-transfected: sc-117752 (A) and mouse 3BP2 transfected: sc-117986 (B) 293T whole cell lysates.



3BP2 (470): sc-100640. Western blot analysis of 3BP2 expression in COLO 320 whole cell lysate.



3BP2 (470): sc-100640. Immunofluorescence staining of paraformaldehyde-fixed A-431 cells showing cytoplasmic localization.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.