

# BRDG1 (P-16): sc-25864

## BACKGROUND

BCR downstream signaling-1 (BRDG1) enhances the activity of Tec and potentiates cellular responses downstream of B cell antigen receptor (BCR), cytokine receptor, integrin, and receptor tyrosine kinase activation. BRDG1 is a docking protein that contains a proline rich PH domain and multiple candidate tyrosine phosphorylation sites that can associate with SH2 domain-containing effector proteins. BRDG1 is preferentially phosphorylated by the Tec family nonreceptor protein tyrosine kinases Tec and Pyk2, which contain SH2, SH3 and pleckstrin homology (PH) domains. The mouse ortholog, stem cell adaptor protein 1 (STAP-1), shares 83% identity with BRDG1. The human BRDG1 protein maps to chromosome 4q13.2 and encodes a 295 amino acid protein. BRDG1 transcripts are abundant in the Ramos human B cell line.

## REFERENCES

1. Kurosaki, T. 1999. Genetic analysis of B cell antigen receptor signaling. *Annu. Rev. Immunol.* 17: 555-592.
2. Ohya, K., Kajigaya, S., Kitanaka, A., Yoshida, K., Miyazato, A., Yamashita, Y., Yamanaka, T., Ikeda, U., Shimada, K., Ozawa, K. and Mano, H. 1999. Molecular cloning of a docking protein, BRDG1, that acts downstream of the Tec tyrosine kinase. *Proc. Natl. Acad. Sci. USA* 96: 11976-11981.
3. Online Mendelian Inheritance in Man, OMIM™. 1999. Johns Hopkins University, Baltimore, MD. MIM Number: 604298. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
4. Masuhara, M., Nagao, K., Nishikawa, M., Sasaki, M., Yoshimura, A. and Osawa, M. 2000. Molecular cloning of murine STAP-1, the stem-cell-specific adaptor protein containing PH and SH2 domains. *Biochem. Biophys. Res. Commun.* 268: 697-703.
5. Yokohari, K., Yamashita, Y., Okada, S., Ohya, K., Oda, S., Hatano, M., Mano, H., Hirasawa, H. and Tokuhisa, T. 2001. Isoform-dependent interaction of BRDG1 with Tec kinase. *Biochem. Biophys. Res. Commun.* 289: 414-420.

## CHROMOSOMAL LOCATION

Genetic locus: STAP1 (human) mapping to 4q13.2; Brdg1 (mouse) mapping to 5 E1.

## SOURCE

BRDG1 (P-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of BRDG1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-25864 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## STORAGE

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

## APPLICATIONS

BRDG1 (P-16) is recommended for detection of BRDG1 of mouse, rat 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).

BRDG1 (P-16) is also recommended for detection of BRDG1 in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for BRDG1 siRNA (h): sc-40370, BRDG1 siRNA (m): sc-40371, BRDG1 shRNA Plasmid (h): sc-40370-SH, BRDG1 shRNA Plasmid (m): sc-40371-SH, BRDG1 shRNA (h) Lentiviral Particles: sc-40370-V and BRDG1 shRNA (m) Lentiviral Particles: sc-40371-V.

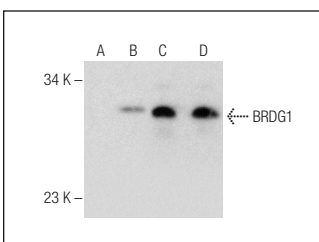
Molecular Weight of BRDG1: 37 kDa.

Positive Controls: Raji whole cell lysate, IB4 whole cell lysate or BRDG1 (h): 293T Lysate: sc-370422.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

## DATA



BRDG1 (P-16): sc-25864. Western blot analysis of BRDG1 expression in non-transfected 293T: sc-117752 (A), human BRDG1 transfected 293T: sc-370422 (B), Raji (C) and IB4 (D) whole cell lysates.

## 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.