

BRDG1 (G-5): sc-515098

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.
6. LocusLink Report (LocusID: 26228). <http://www.ncbi.nlm.nih.gov/LocusLink/>

CHROMOSOMAL LOCATION

Genetic locus: Stap1 (mouse) mapping to 5 E1.

SOURCE

BRDG1 (G-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 266-288 at the C-terminus of BRDG1 of mouse 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-515098 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

BRDG1 (G-5) is recommended for detection of BRDG1 of mouse 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 BRDG1 siRNA (m): sc-40371, BRDG1 shRNA Plasmid (m): sc-40371-SH and BRDG1 shRNA (m) Lentiviral Particles: sc-40371-V.

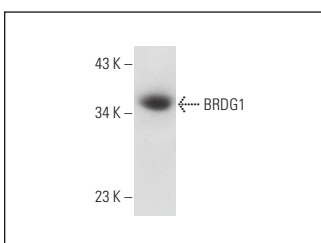
Molecular Weight of BRDG1: 37 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211 or M1 whole cell lysate: sc-364782.

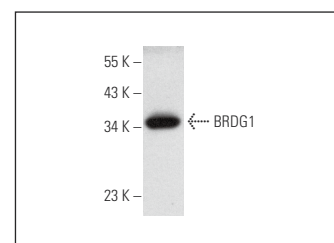
RECOMMENDED SUPPORT REAGENTS

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



BRDG1 (G-5): sc-515098. Western blot analysis of BRDG1 expression in RAW 264.7 whole cell lysate.



BRDG1 (G-5): sc-515098. Western blot analysis of BRDG1 expression in M1 whole cell lysate.

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.