SANTA CRUZ BIOTECHNOLOGY, INC.

BRDT (B-11): sc-515674

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The bromodomain-containing proteins include BRD2, BRD3, BRD4 and BRDT. BRD2 (RING3 protein) is a mitogen-activated nuclear protein whose gene is located in the human MHC II region, suggesting its relation to HLA-associated diseases. The gene encoding BRD3 (RING3-like protein) contains 2 bromodomains and the gene encoding for the protein maps to chromosome 9q34. BRD4 (HUNK1 protein) is a nuclear protein involved in the regulation of chromosomal dynamics during mitosis. The testis-specific bromodomain protein BRDT contains a PEST sequence, indicating that it undergoes rapid intracellular degradation. The bromodomain-containing proteins proteins are ubiquitously expressed.

REFERENCES

1. Jones, M.H., et al. 1997. Identification and characterization of BRDT: A testis-specific gene related to the bromodomain genes RING3 and *Drosophila* fsh. Genomics 45: 529-534.
2. Dhalluin, C., et al. 1999. Structure and ligand of a histone acetyltransferase bromodomain. Nature 399: 491-496.
3. Scanlan, M.J., et al. 2000. Expression of cancer-testis antigens in lung cancer: definition of bromodomain testis-specific gene (BRDT) as a new CT gene, CT9. Cancer Lett. 150: 155-164.
4. Pivot-Pajot, C., et al. 2003. Acetylation-dependent chromatin reorganization by BRDT, a testis-specific bromodomain-containing protein. Mol. Cell. Biol. 23: 5354-5365.
5. Shang, E., et al. 2004. Identification of unique, differentiation stage-specific patterns of expression of the bromodomain-containing genes Brd2, Brd3, Brd4, and Brdt in the mouse testis. Gene. Expr. Patterns 4: 513-519.
6. Zheng, Y., et al. 2005. Molecular cloning and expression of a novel alternative splice variant of BRDT gene. Int. J. Mol. Med. 15: 315-321.

CHROMOSOMAL LOCATION

Genetic locus: BRDT (human) mapping to 1p22.1; Brdt (mouse) mapping to 5 E5.

SOURCE

BRDT (B-11) is a mouse monoclonal antibody raised against amino acids 820-851 mapping near the C-terminus of BRDT of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

BRDT (B-11) is available conjugated to agarose (sc-515674 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-515674 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515674 PE), fluorescein (sc-515674 FITC), Alexa Fluor® 488 (sc-515674 AF488), Alexa Fluor® 546 (sc-515674 AF546), Alexa Fluor® 594 (sc-515674 AF594) or Alexa Fluor® 647 (sc-515674 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515674 AF680) or Alexa Fluor® 790 (sc-515674 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

BRDT (B-11) is recommended for detection of BRDT 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 BRDT siRNA (h): sc-60286, BRDT siRNA (m): sc-60287, BRDT shRNA Plasmid (h): sc-60286-SH, BRDT shRNA Plasmid (m): sc-60287-SH, BRDT shRNA (h) Lentiviral Particles: sc-60286-V and BRDT shRNA (m) Lentiviral Particles: sc-60287-V.

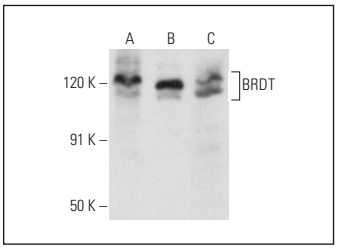
Molecular Weight of BRDT: 108 kDa.

Positive Controls: NTERA-2 cl.D1 whole cell lysate: sc-364181, Hs 181 Tes whole cell lysate: sc-364779 or MCF7 whole cell lysate: sc-2206.

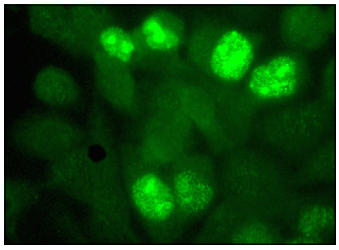
RECOMMENDED SUPPORT REAGENTS

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



BRDT (B-11): sc-515674. Western blot analysis of BRDT expression in MCF7 (**A**), Hs 181 Tes (**B**) and NTERA-2 cl.D1 (**C**) whole cell lysates.



BRDT (B-11): sc-515674. Immunofluorescence staining of formalin-fixed A-431 cells showing nuclear staining in a subset of cells.

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 for detailed protocols and support products.