

BRDT (K-20): sc-47820

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 two bromo domains 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 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 (K-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of BRDT of mouse 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-47820 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

BRDT (K-20) is recommended for detection of BRDT 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); may cross-react with BRD2, BRD3 and BRD4 family members.

BRDT (K-20) is also recommended for detection of BRDT in additional species, including equine, canine, bovine, porcine and avian.

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.

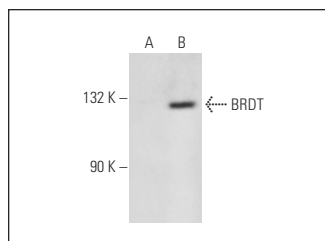
Molecular Weight of BRDT: 108 kDa.

Positive Controls: BRDT (h): 293T Lysate: sc-128115.

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



BRDT (K-20): sc-47820. Western blot analysis of BRDT expression in non-transfected: sc-117752 (A) and human BRDT transfected: sc-128115 (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 or our catalog for detailed protocols and support products.