SANTA CRUZ BIOTECHNOLOGY, INC.

BRD3 (C-12): sc-46808

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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 two bromo domains and the gene encoding for the protein maps to chromosome 9q34.2. 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. Thorpe, K.L., et al. 1997. Chromosomal localization, gene structure and transcription pattern of the ORFX gene, a homologue of the MHC-linked RING3 gene. Gene 200: 177-183.
2. Zhou, M., et al. 2003. Expression of BRD7-interacting proteins, BRD2 and BRD3, in nasopharyngeal carcinoma tissues. Ai Zheng 22: 123-127.
3. 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.
4. Boyer, A., et al. 2004. Pre-sertoli specific gene expression profiling reveals differential expression of Ppt1 and BRD3 genes within the mouse genital ridge at the time of sex determination. Biol. Reprod. 71: 820-827.
5. Trousdale, R.K. and Wolgemuth, D.J. 2004. Bromodomain containing 2 (BRD2) is expressed in distinct patterns during ovarian folliculogenesis independent of FSH or GDF9 action. Mol. Reprod. Dev. 68: 261-268.
6. Crowley, T., et al. 2004. Change in nuclear-cytoplasmic localization of a double-bromodomain protein during proliferation and differentiation of mouse spinal cord and dorsal root ganglia. Brain Res. Dev. Brain Res. 149: 93-101.
7. Kanno, T., et al. 2004. Selective recognition of acetylated histones by bromodomain proteins visualized in living cells. Mol. Cell 13: 33-43.
8. Sinha, A., et al. 2005. Bromodomain analysis of BRD2-dependent transcriptional activation of cyclin A1. Biochem. J. 387: 257-269.

CHROMOSOMAL LOCATION

Genetic locus: BRD3 (human) mapping to 9q34.2; Brd3 (mouse) mapping to 2 A3.

SOURCE

BRD3 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of BRD3 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-46808 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

BRD3 (C-12) is recommended for detection of BRD3 isoform 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (C-12) is also recommended for detection of BRD3 isoform 1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for BRD3 siRNA (h): sc-60284, BRD3 siRNA (m): sc-60285, BRD3 shRNA Plasmid (h): sc-60284-SH, BRD3 shRNA Plasmid (m): sc-60285-SH, BRD3 shRNA (h) Lentiviral Particles: sc-60284-V and BRD3 shRNA (m) Lentiviral Particles: sc-60285-V.

Molecular Weight of BRD3: 80 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, NIH/3T3 whole cell lysate: sc-2210 or HeLa nuclear extract: sc-2120.

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) 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.

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 or our catalog for detailed protocols and support products.