SANTA CRUZ BIOTECHNOLOGY, INC.

BRD2 (C-12): sc-46805

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 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 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. 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.
4. 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.
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. Kanno, T., et al. 2004. Selective recognition of acetylated histones by bromodomain proteins visualized in living cells. Mol. Cell 13: 33-43.
7. 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.

CHROMOSOMAL LOCATION

Genetic locus: BRD2 (human) mapping to 6p21.32; Brd2 (mouse) mapping to 17 B1.

SOURCE

BRD2 (C-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of BRD2 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-46805 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

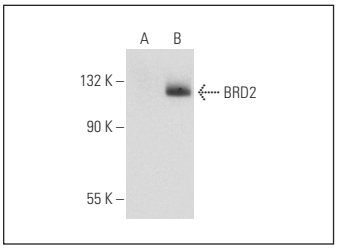
BRD2 (C-12) is recommended for detection of BRD2 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500, immunohistochemistry (including paraffin-embedded sections) (starting dilution 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 BRD2 siRNA (h): sc-60282, BRD2 siRNA (m): sc-60283, BRD2 siRNA (r): sc-270005, BRD2 shRNA Plasmid (h): sc-60282-SH, BRD2 shRNA Plasmid (m): sc-60283-SH, BRD2 shRNA Plasmid (r): sc-270005-SH, BRD2 shRNA (h) Lentiviral Particles: sc-60282-V, BRD2 shRNA (m) Lentiviral Particles: sc-60283-V and BRD2 shRNA (r) Lentiviral Particles: sc-270005-V.

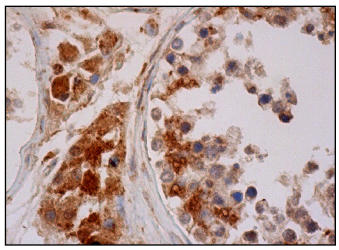
Molecular Weight of BRD2: 88 kDa.

Positive Controls: BRD2 (h): 293T Lysate: sc-117289, A-375 cell lysate: sc-3811 or HeLa nuclear extract: sc-2120.

DATA



BRD2 (C-12): sc-46805. Western blot analysis of BRD2 expression in non-transfected: sc-117752 (**A**) and human BRD2 transfected: sc-117289 (**B**) 293T whole cell lysates.



BRD2 (C-12): sc-46805. Immunoperoxidase staining of formalin fixed, paraffin-embedded human testis tissue showing cytoplasmic staining of cells in seminiferous ducts and Leydig cells.

SELECT PRODUCT CITATIONS

1. Kaltezioti, V., Kouroupi, G., Oikonomaki, M., Mantouvalou, E., Stergiopoulos, A., Charonis, A., Rohrer, H., Matsas, R. and Politis, P.K. 2010. Prox1 regulates the notch1-mediated inhibition of neurogenesis. PLoS Biol. 8: e1000565.

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.