

BRD3 (H-5): sc-515729

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 bromodomains and 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 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 (H-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 176-192 within an internal region of BRD3 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

BRD3 (H-5) is recommended for detection of BRD3 isoforms 1 and 2 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 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.

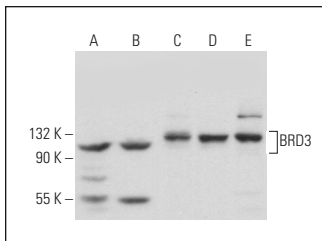
Molecular Weight of BRD3: 80 kDa.

Positive Controls: RPMI2650 whole cell lysate: sc-364192, HeLa whole cell lysate: sc-2200 or human eye extract: sc-364223.

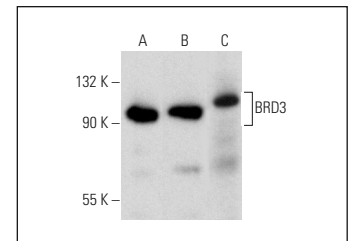
RECOMMENDED SUPPORT REAGENTS

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



BRD3 (H-5): sc-515729. Western blot analysis of BRD3 expression in HeLa (A), Y79 (B), PC-12 (C), NIH/3T3 (D) and F9 (E) whole cell lysates.



BRD3 (H-5): sc-515729. Western blot analysis of BRD3 expression in HeLa (A) and RPMI2650 (B) whole cell lysates and human eye tissue extract (C).

SELECT PRODUCT CITATIONS

1. Jameson, N.M., et al. 2019. Intron 1-mediated regulation of EGFR expression in EGFR-dependent malignancies is mediated by AP-1 and BET proteins. *Mol. Cancer Res.* 17: 2208-2220.

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.