

BRD3 (B-12): sc-515666

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.

CHROMOSOMAL LOCATION

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

SOURCE

BRD3 (B-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 175-192 within an internal region of BRD3 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

BRD3 (B-12) is available conjugated to agarose (sc-515666 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515666 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515666 PE), fluorescein (sc-515666 FITC), Alexa Fluor® 488 (sc-515666 AF488), Alexa Fluor® 546 (sc-515666 AF546), Alexa Fluor® 594 (sc-515666 AF594) or Alexa Fluor® 647 (sc-515666 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515666 AF680) or Alexa Fluor® 790 (sc-515666 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515666 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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APPLICATIONS

BRD3 (B-12) 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.

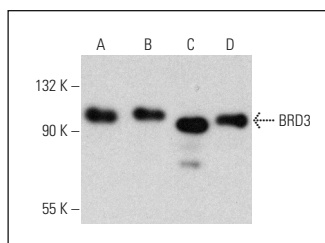
Molecular Weight of BRD3: 80 kDa.

Positive Controls: RPMI2650 whole cell lysate: sc-364192, HeLa nuclear extract: sc-2120 or IMR-32 nuclear extract: sc-2148.

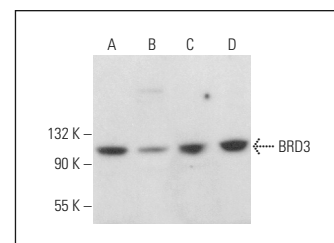
RECOMMENDED SUPPORT REAGENTS

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 (B-12): sc-515666. Western blot analysis of BRD3 expression in HeLa (A), IMR-32 (B) and COLO 320DM (C) nuclear extracts and RPMI2650 whole cell lysate (D).



BRD3 (B-12): sc-515666. Western blot analysis of BRD3 expression in IMR-32 nuclear extract (A) and SW480 (B), NIH/3T3 (C) and SJRH30 (D) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Alvarez-Trotta, A., et al. 2020. The bromodomain inhibitor IBET-151 attenuates vismodegib-resistant esophageal adenocarcinoma growth through reduction of GLI signaling. *Oncotarget* 11: 3174-3187.

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.