

BRD2 (A-2): sc-514103

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. 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., et al. 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.

CHROMOSOMAL LOCATION

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

SOURCE

BRD2 (A-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 214-233 within an internal region of BRD2 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.

Blocking peptide available for competition studies, sc-514103 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

BRD2 (A-2) is recommended for detection of BRD2 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 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.

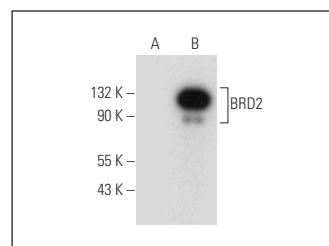
Molecular Weight of BRD2: 88 kDa.

Positive Controls: BRD2 (h): 293T Lysate: sc-117289.

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



BRD2 (A-2): sc-514103. Western blot analysis of BRD2 expression in non-transfected: sc-117752 (A) and human BRD2 transfected: sc-117289 (B) 293T whole cell lysates.

SELECT PRODUCT CITATIONS

1. Sun, Y., et al. 2018. Inhibition of BRD4 attenuates cardiomyocyte apoptosis via NFκB pathway in a rat model of myocardial infarction. *Cardiovasc. Ther.* E-published.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.