

# BRD1 (F-12): sc-398226

## BACKGROUND

BRD1 (bromodomain-containing protein 1, Peregrin-like protein) is a 1,058 amino acid protein that is encoded by the human gene BRD1 and shares homology to Peregrin, a protein thought to function as a transcription factor. BRD1, like Peregrin, is a nuclear protein that contains one bromodomain, one PHD-type zinc finger and one PWWP domain. The zinc finger and leucine zipper domains of Peregrin and BRD1 have significant homology to those of AF-10 and MLLT6, two proteins that are involved in various acute leukemias. This suggests a possible role of BRD1 in the development of leukemia. Additionally, the chromosomal region (22q12-13) containing BRD1 may contain one or more susceptibility genes for schizophrenia (SZ) and bipolar affective disorder (BPD), implicating BRD1 in the pathogenesis of these mental illnesses.

## REFERENCES

- Gregorini, A., et al. 1996. Gene BR140, which is related to AF10 and AF17, maps to chromosome band 3p25. *Genes Chromosomes Cancer* 17: 269-272.
- Linder, B., et al. 1998. Expression pattern and cellular distribution of the murine homologue of AF10. *Biochim. Biophys. Acta* 1443: 285-296.
- McCullagh, P., et al. 1999. The cloning, mapping and expression of a novel gene, BRL, related to the AF10 leukaemia gene. *Oncogene* 18: 7442-7452.
- Loeb, C.R., et al. 2006. Granzyme B proteolyzes receptors important to proliferation and survival, tipping the balance toward apoptosis. *J. Biol. Chem.* 281: 28326-28335.

## CHROMOSOMAL LOCATION

Genetic locus: BRD1 (human) mapping to 22q13.33; Brd1 (mouse) mapping to 15 E3.

## SOURCE

BRD1 (F-12) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 77-98 near the N-terminus of BRD1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

BRD1 (F-12) is available conjugated to agarose (sc-398226 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-398226 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-398226 PE), fluorescein (sc-398226 FITC), Alexa Fluor® 488 (sc-398226 AF488), Alexa Fluor® 546 (sc-398226 AF546), Alexa Fluor® 594 (sc-398226 AF594) or Alexa Fluor® 647 (sc-398226 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-398226 AF680) or Alexa Fluor® 790 (sc-398226 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-398226 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## APPLICATIONS

BRD1 (F-12) is recommended for detection of BRD1 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 BRD1 siRNA (h): sc-72663, BRD1 siRNA (m): sc-141739, BRD1 shRNA Plasmid (h): sc-72663-SH, BRD1 shRNA Plasmid (m): sc-141739-SH, BRD1 shRNA (h) Lentiviral Particles: sc-72663-V and BRD1 shRNA (m) Lentiviral Particles: sc-141739-V.

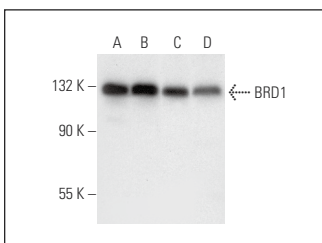
Molecular Weight of BRD1: 120 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, Jurkat nuclear extract: sc-2132 or Raji whole cell lysate: sc-364236.

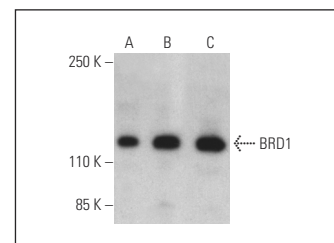
## RECOMMENDED SUPPORT REAGENTS

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



BRD1 (F-12): sc-398226. Western blot analysis of BRD1 expression in CCRF-CEM (A) and Jurkat (B) nuclear extracts and Raji (C) and K-562 (D) whole cell lysates.



BRD1 (F-12) HRP: sc-398226 HRP. Direct western blot analysis of BRD1 expression in Raji (A) and K-562 (B) whole cell lysates and Jurkat nuclear extract (C).

## 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](http://www.scbt.com) for detailed protocols and support products.