SANTA CRUZ BIOTECHNOLOGY, INC.

Brg-1 (P-18): sc-12520



BACKGROUND

The SWI-SNF complex is involved in the activation of transcription via the remodeling of nucleosome structure in an ATP-dependent manner. Brm (also designated SNF2 α) and Brg-1 (also designated SNF2 β) are the ATPase subunits of the mammalian SWI-SNF complex. Brm, Brg-1, Ini1 (integrase interactor 1, also designated SNF5), BAF155 (also designated SRG3) and BAF170 are thought to comprise the functional core of the SWI-SNF complex. Addition of Ini1, BAF155 and BAF170 to Brg-1 appears to increase remodeling activity. Other complex subunits are thought to play regulatory roles. hSNF2L and hSNF2H both appear to be homologs of *Drosophila* ISWI, a Brm related ATPase that is present in chromatin remodeling complexes other than SWI/ SNF, including the NURF (nucleosome remodeling factor).

CHROMOSOMAL LOCATION

Genetic locus: SMARCA4 (human) mapping to 19p13.2; Smarca4 (mouse) mapping to 9 A3.

SOURCE

Brg-1 (P-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of Brg-1 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-12520 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-12520 X, 200 $\mu g/0.1$ ml.

APPLICATIONS

Brg-1 (P-18) is recommended for detection of Brg-1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Brg-1 (P-18) is also recommended for detection of Brg-1 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for Brg-1 siRNA (h): sc-29827, Brg-1 siRNA (m): sc-29830, Brg-1 shRNA Plasmid (h): sc-29827-SH, Brg-1 shRNA Plasmid (m): sc-29830-SH, Brg-1 shRNA (h) Lentiviral Particles: sc-29827-V and Brg-1 shRNA (m) Lentiviral Particles: sc-29830-V.

Brg-1 (P-18) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of Brg-1: 200-205 kDa.

Positive Controls: K-562 nuclear extract: sc-2130 or HeLa nuclear extract: sc-2120.

STORAGE

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

DATA



Brg-1 (P-18): sc-12520. Western blot analysis of Brg-1 expression in K-562 (A) and HeLa (B) nuclear extracts.

SELECT PRODUCT CITATIONS

- 1. Hansis, C., et al. 2004. Nuclear reprogramming of human somatic cells by *xenopus* egg extract requires BRG1. Curr. Biol. 14: 1475-1480.
- 2. Mahajan, M.C., et al. 2005. Heterogeneous nuclear ribonucleoprotein C1/C2, MeCP1, and SWI/SNF form a chromatin remodeling complex at the β -globin locus control region. Proc. Natl. Acad. Sci. USA 102: 15012-15017.
- Xu, Z., et al. 2006. Recruitment of the SWI/SNF protein Brg1 by a multiprotein complex effects transcriptional repression in murine erythroid progenitors. Biochem. J. 399: 297-304.
- Huang, L., et al. 2011. Prevention of transcriptional silencing by a replicator-binding complex consisting of SWI/SNF, MeCP1, and hnRNP C1/C2. Mol. Cell. Biol. 31: 3472-3484.

RESEARCH USE

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

PROTOCOLS

MONOS

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See our web site at www.scbt.com or our catalog for detailed protocols and support products.

Try Brg-1 (G-7): sc-17796 or Brg-1 (H-10): sc-374197, our highly recommended monoclonal alternatives to

Brg-1 (P-18). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Brg-1 (G-7):** sc-17796.