SANTA CRUZ BIOTECHNOLOGY, INC.

Brg-1 (H-88): sc-10768

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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 SNF2α) and Brg-1 (also designated SNF2β) 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 (H-88) is a rabbit polyclonal antibody raised against amino acids 209-296 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.

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-10768 X, 200 µg/0.1 ml.

APPLICATIONS

Brg-1 (H-88) 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 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 immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500).

Brg-1 (H-88) is also recommended for detection of Brg-1 in additional species, including 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 (H-88) 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.

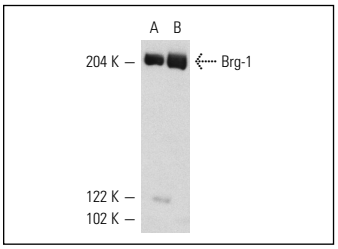
STORAGE

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

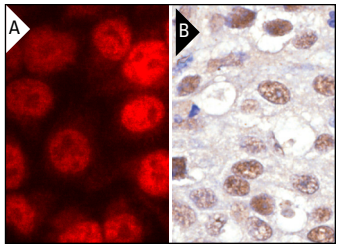
RESEARCH USE

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

DATA



Brg-1 (H-88): sc-10768. Western blot analysis of Brg-1 expression in HeLa (**A**) and K-562 (**B**) nuclear extracts.



Brg-1 (H-88): sc-10768. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization (**A**). Immunoperoxidase staining of formalin-fixed, paraffin-embedded human lung tumor showing nuclear staining (**B**).

SELECT PRODUCT CITATIONS

1. Soutoglou, E., et al. 2002. Coordination of PIC assembly and chromatin remodeling during differentiation-induced gene activation. Science 295: 1901-1904.
2. Hatzis, P., et al. 2002. Dynamics of enhancer-promoter communication during differentiation-induced gene activation. Mol. Cell 10: 1467-1477.
3. DiNatale, B.C., et al. 2011. Ah receptor antagonism inhibits constitutive and cytokine inducible IL6 production in head and neck tumor cell lines. Mol. Carcinog. 50: 173-183.
4. Wang, Y., et al. 2011. BRG1 is indispensable for IFN-γ-induced TRIM22 expression, which is dependent on the recruitment of IRF-1. Biochem. Biophys. Res. Commun. 410: 549-554.
5. Xue, H., et al. 2011. A CRE that binds CREB and contributes to PKA-dependent regulation of the proximal promoter of human RAB25 gene. Int. J. Biochem. Cell Biol. 43: 348-357.
6. Zhan, X., et al. 2011. Dual role of Brg chromatin remodeling factor in Sonic hedgehog signaling during neural development. Proc. Natl. Acad. Sci. USA 108: 12758-12763.
7. Flowers, S., et al. 2011. Tissue-specific gene targeting by the multiprotein mammalian DREAM complex. J. Biol. Chem. 286: 27867-27871.
8. Bai, J., et al. 2012. BRG1 expression is increased in human glioma and controls glioma cell proliferation, migration and invasion *in vitro*. J. Cancer Res. Clin. Oncol. 138: 991-998.
9. Van Duyne, R., et al. 2012. Localization and sub-cellular shuttling of HTLV-1 tax with the miRNA machinery. PLoS ONE 7: e40662.