

# Brg-1 (N-15): sc-8749

## 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 $\alpha$ ) and Brg-1 (also designated SNF2 $\beta$ ) 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 (N-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the N-terminus of Brg-1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8749 P, (100  $\mu$ 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-8749 X, 200  $\mu$ g/0.1 ml.

## APPLICATIONS

Brg-1 (N-15) 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  $\mu$ g per 100-500  $\mu$ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 (N-15) is also recommended for detection of Brg-1 in additional species, including canine 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 (N-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

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

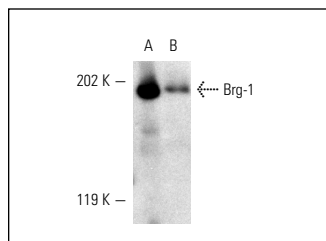
## RESEARCH USE

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

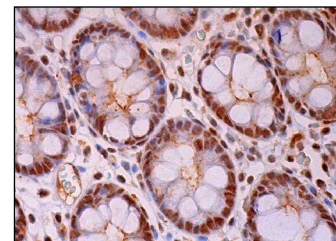
## STORAGE

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

## DATA



Brg-1 (N-15): sc-8749. Western blot analysis of Brg-1 expression in K-562 (A) and HeLa (B) nuclear extracts.



Brg-1 (N-15): sc-8749. Immunoperoxidase staining of formalin fixed, paraffin-embedded human colon tissue showing nuclear staining of glandular cells, endothelial cells and interstitial cells.

## SELECT PRODUCT CITATIONS

- Baek, S., et al. 2002. Exchange of N-CoR corepressor and Tip60 coactivator complexes links gene expression by NF $\kappa$ B and  $\beta$ -amyloid precursor protein. *Cell* 110: 55-67.
- Dellaire, G., et al. 2002. Mammalian PRP4 kinase copurifies and interacts with components of both the U5 snRNP and the N-CoR deacetylase complexes. *Mol. Cell. Biol.* 22: 5141-5156.
- Ishida, M., et al. 2004. Transcriptional co-activator activity of SYT is negatively regulated by BRM and Brg-1. *Genes Cells* 9: 419-428.
- Baek, S.H., et al. 2006. Ligand-specific allosteric regulation of coactivator functions of androgen receptor in prostate cancer cells. *Proc. Natl. Acad. Sci. USA* 103: 3100-3105.
- Chang, D.F., et al. 2007. LIM-only protein, CRP2, switched on smooth muscle gene activity in adult cardiac myocytes. *Proc. Natl. Acad. Sci. USA* 104: 157-162.
- Serra, C., et al. 2007. Functional interdependence at the chromatin level between the MKK6/p38 and IGF1/PI3K/AKT pathways during muscle differentiation. *Mol. Cell* 28: 200-213.
- Rao, M., et al. 2008. Inhibition of cyclin D1 gene transcription by Brg-1. *Cell Cycle* 7: 647-655.
- Taylor, R.T., et al. 2009. Roles of coactivator proteins in dioxin induction of CYP1A1 and CYP1B1 in human breast cancer cells. *Toxicol. Sci.* 107: 1-8.



Try **Brg-1 (G-7): sc-17796** or **Brg-1 (H-10): sc-374197**, our highly recommended monoclonal alternatives to Brg-1 (N-15). Also, for AC, HRP, FITC, PE, Alexa Fluor<sup>®</sup> 488 and Alexa Fluor<sup>®</sup> 647 conjugates, see **Brg-1 (G-7): sc-17796**.