

Bmi-1 (H-99): sc-10745

BACKGROUND

In *Drosophila*, Polycomb (Pc-g) gene family encodes chromatin proteins that are required for the repression of homeotic loci in embryonic development. Mel-18 and Bmi-1 are mammalian homologs of *Drosophila* Pc-γ group proteins, as they are similarly expressed during development and implicated in the regulation of gene expression, axial skeleton development, and the control of proliferation and survival of haematopoietic cells. Mel-18 directly binds to DNA through a ring-finger motif and preferentially associates with juxtaposed enhancer elements on various genes, including Bcl-2, c-Myc and Hox. Mel-18 is an immediate early response gene within the c-Myc/Cdc25 signaling cascade that exhibits tumor suppressor activity and negatively regulates cell cycle progression by blocking S phase entry. Alternatively, Bmi-1 has been identified as a potent oncogene as it contributes to the transcriptional activation of genes implicated in early lymphoid development. Proviral activation of Bmi-1 expression corresponds to enhanced gene-specific activation of other proto-oncogenes, including c-Myc and Pim, subsequently resulting in the progression of lymphomagenesis.

CHROMOSOMAL LOCATION

Genetic locus: BMI1 (human) mapping to 10p12.2; Bmi1 (mouse) mapping to 2 A3.

SOURCE

Bmi-1 (H-99) is a rabbit polyclonal antibody raised against amino acids 228-326 of Bmi-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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-10745 X, 200 µg/0.1 ml.

APPLICATIONS

Bmi-1 (H-99) is recommended for detection of Bmi-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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Bmi-1 (H-99) is also recommended for detection of Bmi-1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Bmi-1 siRNA (h): sc-29814, Bmi-1 siRNA (m): sc-29815, Bmi-1 shRNA Plasmid (h): sc-29814-SH, Bmi-1 shRNA Plasmid (m): sc-29815-SH, Bmi-1 shRNA (h) Lentiviral Particles: sc-29814-V and Bmi-1 shRNA (m) Lentiviral Particles: sc-29815-V.

Bmi-1 (H-99) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

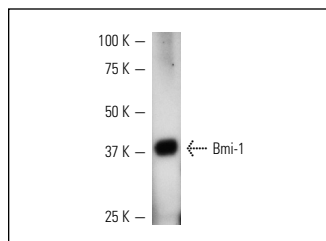
Molecular Weight of Bmi-1: 41 kDa.

Positive Controls: K-562 nuclear extract: sc-2130.

STORAGE

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

DATA



Bmi-1 (H-99): sc-10745. Western blot analysis of Bmi-1 expression in K-562 nuclear extract.

SELECT PRODUCT CITATIONS

1. Kang-Decker, N. 2003. Loss of CBP causes T cell lymphomagenesis in synergy with p27^{Kip1} insufficiency. *Cancer Cell* 5: 177-189.
2. Boukarabila, H., et al. 2009. The PRC1 Polycomb group complex interacts with PLZF/RARA to mediate leukemic transformation. *Genes Dev.* 23: 1195-1206.
3. Palijan, A., et al. 2009. Ligand-dependent corepressor LCoR is an attenuator of progesterone-regulated gene expression. *J. Biol. Chem.* 284: 30275-30287.
4. Tzatsos, A., et al. 2009. Ndy1/KDM2B immortalizes mouse embryonic fibroblasts by repressing the *Ink4a/Arf* locus. *Proc. Natl. Acad. Sci. USA* 106: 2641-2646.
5. Garcia-Escudero, V., et al. 2009. Prevention of senescence progression in reversibly immortalized human ensheathing glia permits their survival after deimmortalization. *Mol. Ther.* 18: 394-403.
6. Lim, F., et al. 2009. Reversibly immortalized human olfactory ensheathing glia from an elderly donor maintain neuroregenerative capacity. *Glia* 58: 546-558.
7. Garcia-Escudero, V., et al. 2010. A neuroregenerative human ensheathing glia cell line with conditional rapid growth. *Cell Transplant.* 20: 153-166.
8. Kim, H.Y., et al. 2015. CBX7 inhibits breast tumorigenicity through DKK-1-mediated suppression of the Wnt/β-catenin pathway. *FASEB J.* 29: 300-313.

RESEARCH USE

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



Try **Bmi-1 (F-9): sc-390443** or **Bmi-1 (1F4): sc-13519**, our highly recommended monoclonal alternatives to Bmi-1 (H-99). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Bmi-1 (F-9): sc-390443**.