

YB-1 (A-16): sc-18057

BACKGROUND

Y-Box binding protein YB-1 (also known as CCAAT-binding transcription factor, enhancer factor I subunit A and DNA-binding protein B) belongs to a family of multifunctional proteins, which regulate both transcription and translation. Y-box proteins interact with a wide variety of nucleic acid structures to act as transcription factors and mRNA masking proteins. The modular structure of Y-box proteins includes a highly conserved N-terminal cold-shock domain (CSD, equivalent to the bacterial cold-shock proteins) and four basic C-terminal domains containing arginine clusters and aromatic residues. YB-1 plays a role in cell proliferation as an activator of growth-associated gene expression. YB-1 is also a repressor of the cell death-associated gene FAS. YB-1 may play an important role in controlling cell survival by regulating the expression of cell growth-associated and death-associated genes.

CHROMOSOMAL LOCATION

Genetic locus: YBX1 (human) mapping to 1p34.2; Ybx1 (mouse) mapping to 4 D2.1

SOURCE

YB-1 (A-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of YB-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-18057 P, (100 µg 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-18057 X, 200 µg/0.1 ml.

APPLICATIONS

YB-1 (A-16) is recommended for detection of YB-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), 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).

YB-1 (A-16) is also recommended for detection of YB-1 in additional species, including canine, bovine, porcine and avian.

Suitable for use as control antibody for YB-1 siRNA (h): sc-38634, YB-1 siRNA (m): sc-38635, shRNA Plasmid (h): sc-38634-SH, YB-1 shRNA Plasmid (m): sc-38635-SH, YYB-1 shRNA (h) Lentiviral Particles: sc-38634-V and YB-1 shRNA (m) Lentiviral Particles: sc-38635-V.

YB-1 (A-16) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

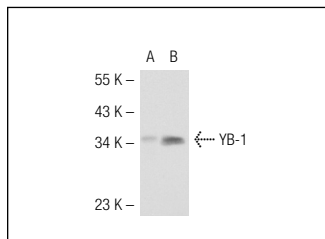
Molecular Weight (predicted) of YB-1: 36 kDa.

Molecular Weight (observed) of YB-1: 35-50 kDa.

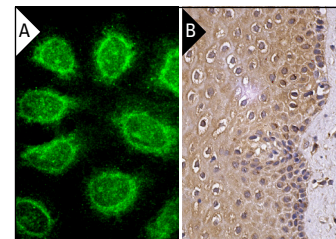
STORAGE

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

DATA



YB-1 (A-16): sc-18057. Western blot analysis of YB-1 expression in HeLa (A) and K-562 (B) whole cell lysates.



YB-1 (A-16): sc-18057. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic and nuclear localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human cervix tissue showing cytoplasmic staining of squamous epithelial cells (B).

SELECT PRODUCT CITATIONS

- Kojic, S., et al. 2004. The Ankr2 protein, a link between the sarcomere and the nucleus in skeletal muscle. *J. Mol. Biol.* 339: 313-325.
- Homer, C., et al. 2005. Y-box factor YB1 controls p53 apoptotic function. *Oncogene* 24: 8314-8325.
- Sano, E., et al. 2008. Novel tyrosine phosphorylated and cardiolipin-binding protein CLPABP functions as mitochondrial RNA granule. *Biochim. Biophys. Acta* 1783: 1036-1047.
- Chibi, M., et al. 2008. RBBP6 interacts with multifunctional protein YB-1 through its RING finger domain, leading to ubiquitination and proteasomal degradation of YB-1. *J. Mol. Biol.* 384: 908-916.
- Perez-Leal, O., et al. 2012. Polyamine-regulated translation of spermidine/spermine-N1-acetyltransferase. *Mol. Cell. Biol.* 32: 1453-1467.

RESEARCH USE

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

PROTOCOLS

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


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Try **YB-1 (C-3): sc-398340** or **YB-1 (E-7): sc-398146**, our highly recommended monoclonal alternatives to YB-1 (A-16).