**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**

**SELECT PRODUCT CITATIONS**


**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.