

Anti-YB-1 antibody



Description Rabbit polyclonal to YB-1.

Model STJ96290

Host Rabbit

Reactivity Human, Mouse, Rat

Applications ELISA, WB

Immunogen Synthesized peptide derived from human YB-1 around the non-

phosphorylation site of S102.

Immunogen Region 40-120 aa

Gene ID 4904

Gene Symbol YBX1

Dilution range WB 1:500-1:2000ELISA 1:40000

Specificity YB-1 Polyclonal Antibody detects endogenous levels of YB-1 protein.

Purification The antibody was affinity-purified from rabbit antiserum by affinity-

chromatography using epitope-specific immunogen.

Note For Research Use Only (RUO).

Protein Name Nuclease-sensitive element-binding protein 1 CCAAT-binding transcription

factor I subunit A CBF-A DNA-binding protein B DBPB Enhancer factor I

subunit A EFI-A Y-box transcription factor Y-box-binding protein

Molecular Weight 36 kDa

Clonality Polyclonal

Conjugation Unconjugated

Isotype IgG

Formulation Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Concentration 1 mg/ml

Storage Instruction Store at -20°C, and avoid repeat freeze-thaw cycles.

Database Links <u>HGNC:8014OMIM:154030</u>

Alternative Names Nuclease-sensitive element-binding protein 1 CCAAT-binding transcription

factor I subunit A CBF-A DNA-binding protein B DBPB Enhancer factor I

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Function Mediates pre-mRNA alternative splicing regulation. Binds to splice sites in

pre-mRNA and regulates splice site selection. Binds and stabilizes cytoplasmic mRNA. Contributes to the regulation of translation by modulating the interaction between the mRNA and eukaryotic initiation factors . Regulates the transcription of numerous genes. Its transcriptional activity on the multidrug resistance gene MDR1 is enhanced in presence of the APEX1 acetylated form at 'Lys-6' and 'Lys-7'. Binds to promoters that contain a Y-box (5'-CTGATTGGCCAA-3'), such as MDR1 and HLA class II genes. Promotes separation of DNA strands that contain mismatches or are modified by cisplatin. Has endonucleolytic activity and can introduce nicks or breaks into double-stranded DNA (in vitro). May play a role in DNA repair. Component of the CRD-mediated complex that promotes MYC mRNA stability. Binds preferentially to the 5'-[CU]CUGCG-3' motif in vitro. The secreted form acts as an extracellular mitogen and stimulates cell migration

and proliferation.

Cellular Localization Cytoplasmic Cytoplasmic granule Secreted. Localized in cytoplasmic

mRNP granules containing untranslated mRNAs. Shuttles between nucleus and cytoplasm. Predominantly cytoplasmic in proliferating cells. Cytotoxic stress and DNA damage enhance translocation to the nucleus. Localized with DDX1, MBNL1 and TIAL1 in stress granules upon stress. Secreted by mesangial and monocytic cells after inflammatory challenges. Translocates from the cytoplasm to the nucleus after and colocalizes with APEX1 in

nuclear speckles after genotoxic stress.

Post-translational Ubiquitinated by RBBP6; leading to a decrease of YBX1 transcactivational ability. In the absence of phosphorylation the protein is retained in the

ability. In the absence of phosphorylation the protein is retained in the cytoplasm. Cleaved by a 20S proteasomal protease in response to agents that damage DNA. Cleavage takes place in the absence of ubiquitination and ATP.

The resulting N-terminal fragment accumulates in the nucleus .