

Rabbit YB1 Polyclonal Antibody | anti-YB1 antibody

Phospho-YB1 (Ser102) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA329960	Rabbit	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Xenopus (86%)	ELISA, Western Blot

PRODUCT SYNONYMS

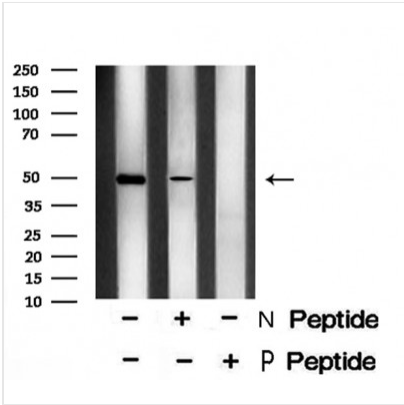
YB1; Polyclonal Antibody; Phospho-YB1 (Ser102) Antibody; BP 8; CBF-A; CCAAT binding transcription factor I subunit A; CCAAT-binding transcription factor I subunit A; CSDA2; CSDB; DBPB; DNA binding protein B; DNA-binding protein B; EFI-A; Enhancer factor I subunit A; MDR NF1; MGC104858; MGC110976; MGC117250; NSEP 1; NSEP1; Nuclease sensitive element binding protein 1; Nuclease-sensitive element-binding protein 1; p50; Q15905; Y-box binding protein 1; Y-box transcription factor; Y-box-binding protein 1; YB 1; YB-1; YBOX1_HUMAN; YBX 1; ybx1; anti-YB1 antibody

PRODUCT SPECIFICATIONS

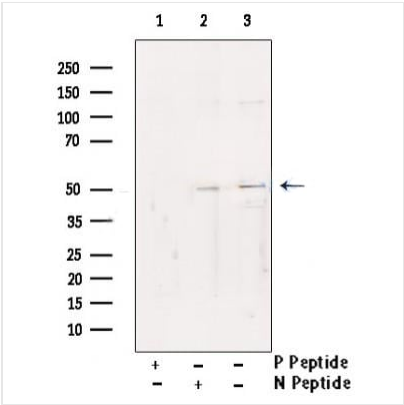
Host	Rabbit
Reactivity	Human, Mouse, Rat Predicted Reactivity: Pig (100%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Xenopus (86%)
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Phospho-YB1 (Ser102) Antibody detects endogenous levels of YB1 only when phosphorylated at Ser102.
Purity/Purification	The antibody is from purified rabbit serum by affinity purification via sequential chromatography on phospho-peptide and non-phospho-peptide affinity columns.
Form/Format	Liquid. Rabbit IgG in phosphate buffered saline, pH7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Applicable Applications for anti-YB1 antibody	ELISA (Peptide ELISA), WB (Western Blot)
Immunogen	A synthesized peptide derived from human YB1 around the phosphorylation site of Ser102.
Conjugation	Unconjugated
Fragment	Fab fragment
Post Translational Modifications	Ubiquitinated by RBBP6; leading to a decrease of YBX1 transactivational 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 (By similarity).
Subunit Structure	Homodimer in the presence of ATP. Component of the coding region determinant (CRD)-mediated complex, composed of DHX9, HNRNP1, IGF2BP1, SYNCRIP and YBX1. Identified in a IGF2BP1-dependent mRNP granule complex containing untranslated mRNAs. Component of the U11/U12 snRNPs that are part of the U12-type spliceosome. Identified in a histone pre-mRNA complex, at least composed of ERI1, LSM11, SLBP, SNRPB, SYNCRIP and YBX1 (By similarity). Interacts with IGF2BP1 and RBBP6. Component of cytoplasmic messenger ribonucleoprotein particles (mRNPs). Interacts with AKT1, MBNL1, SFRS9, SFRS12, ALYREF/THOC4, MSH2, XRCC5, WRN and NCL. Interacts (via C-terminus) with APEX1 (via N-terminus); the interaction is increased with APEX1 acetylated at 'Lys-6' and 'Lys-7'. Interacts with AGO1 and AGO2. Interacts with ANKRD2. Interacts with DERA. Interacts with FMR1; this interaction occurs in association with polyribosome (By similarity). Interacts with ZBTB7B (By similarity). Interacts with HDGF (isoform 1). Interacts with ELAVL1; leading to ELAVL1 recruitment on C5-methylcytosine (m5C)-containing mRNAs and subsequent mRNA stability.

Similarity	In the CSD domain, Trp-65 specifically recognizes C5-methylcytosine (m5C) modification through its indole ring.Belongs to the YBX1 family.
Subcellular Location	Cytoplasm. Nucleus. Cytoplasmic granule. Secreted. Secreted>Extracellular exosome. Note: Predominantly cytoplasmic in proliferating cells (PubMed:12604611). Cytotoxic stress and DNA damage enhance translocation to the nucleus (PubMed:14718551). Localized in cytoplasmic mRNP granules containing untranslated mRNAs (PubMed:25229427). Shuttles between nucleus and cytoplasm (PubMed:25229427). Localized with DDX1, MBNL1 and TIAL1 in stress granules upon stress (PubMed:18335541). Secreted by mesangial and monocytic cells after inflammatory challenges (PubMed:19483673).
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



WB (Western Blot)
Western blot analysis of Phospho-YB1 (Ser102) using HepG2 whole cell lysates.-/+ means absence or presence of N peptide(¼non-phospho peptide) and P peptide(phospho peptide).



WB (Western Blot)
Western blot analysis of extracts from HepG2, using Phospho-YB1 (Ser102) Antibody. Lane1 was treated with phospho-blocking peptide, Lane2 was treated with non-phospho-blocking peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-YB1 antibody	DNA- and RNA-binding protein involved in various processes, such as translational repression, RNA stabilization, mRNA splicing, DNA repair and transcription regulation. Predominantly acts as a RNA-binding protein: binds preferentially to the 5'-[CU]CUGCG-3' RNA motif and specifically recognizes mRNA transcripts modified by C5-methylcytosine (m5C). Promotes mRNA stabilization: acts by binding to m5C-containing mRNAs and recruiting the mRNA stability maintainer ELAVL1, thereby preventing mRNA decay. Component of the CRD-mediated complex that promotes MYC mRNA stability. Contributes to the regulation of translation by modulating the interaction between the mRNA and eukaryotic initiation factors (By similarity). Plays a key role in RNA composition of extracellular exosomes by defining the sorting of small non-coding RNAs, such as tRNAs, Y RNAs, Vault RNAs and miRNAs. Probably sorts RNAs in exosomes by recognizing and binding C5-methylcytosine (m5C)-containing RNAs. Acts as a key effector of epidermal progenitors by preventing epidermal progenitor senescence: acts by regulating the translation of a senescence-associated subset of cytokine mRNAs, possibly by binding to m5C-containing mRNAs. Also involved in pre-mRNA alternative splicing regulation: binds to splice sites in pre-mRNA and regulates splice site selection. Also able to bind DNA: regulates transcription of 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, suggesting a role in DNA repair. The secreted form acts as an extracellular mitogen and stimulates cell migration and proliferation.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	34098946
NCBI GeneID	4904
NCBI Accession #	NP_004550.2
NCBI GenBank Nucleotide #	NM_004559.3

UniProt Accession #	P67809; P16990; P16991; Q14972; Q15325; Q5FVF0
Molecular Weight	35,924 Da
NCBI Official Full Name	nuclease-sensitive element-binding protein 1
NCBI Official Synonym Full Names	Y box binding protein 1
NCBI Official Symbol	YBX1
NCBI Official Synonym Symbols	YB1; BP-8; CSDB; DBPB; YB-1; CSDA2; NSEP1; NSEP-1; MDR-NF1
NCBI Protein Information	nuclease-sensitive element-binding protein 1; CBF-A; EFI-A; DNA-binding protein B; Y-box-binding protein 1; Y-box transcription factor; enhancer factor I subunit A; nuclease sensitive element binding protein 1; CCAAT-binding transcription factor I subunit
UniProt Protein Name	Nuclease-sensitive element-binding protein 1
UniProt Gene Name	YBX1
UniProt Synonym Gene Names	NSEP1; YB1; CBF-A; DBPB; EFI-A; YB-1
UniProt Entry Name	YBOX1_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/yb1-antibody-peptide-elisa-western-blot-elisa/329960>