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Anti-YBX1 (pS102) Antibody

Rabbit polyclonal antibody to YBX1 (pS102)
Catalog # AP60716

Specification

Anti-YBX1 (pS102) Antibody - Product Information

Application	**WB**
Primary Accession	P67809
Other Accession	P62960
Reactivity	**Human, Mouse, Rat, Chicken, Bovine**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**35924**

Anti-YBX1 (pS102) Antibody - Additional Information

Gene ID 4904

Other Names
NSEP1; YB1; 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 1; YB-1

Target/Specificity
Recognizes endogenous levels of YBX1 (pS102) protein.

Dilution
WB~~WB (1/500 - 1/1000)

Format
Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage
Store at -20 °C.Stable for 12 months from date of receipt

Anti-YBX1 (pS102) Antibody - Protein Information

Name YBX1 (HGNC:8014)

Function
DNA- and RNA-binding protein involved in various processes, such as translational repression, RNA stabilization, mRNA splicing, DNA repair and transcription regulation (PubMed:10817758, PubMed:11698476, PubMed:14718551, PubMed:18809583, PubMed:31358969, PubMed:<a

href="http://www.uniprot.org/citations/8188694" target="_blank">8188694). 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) (PubMed:19561594, PubMed:31358969). Promotes mRNA stabilization: acts by binding to m5C- containing mRNAs and recruiting the mRNA stability maintainer ELAVL1, thereby preventing mRNA decay (PubMed:10817758, PubMed:11698476, PubMed:31358969). Component of the CRD-mediated complex that promotes MYC mRNA stability (PubMed:19029303). 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 (PubMed:27559612, PubMed:29073095). Probably sorts RNAs in exosomes by recognizing and binding C5-methylcytosine (m5C)-containing RNAs (PubMed:28341602, PubMed:29073095). 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 (PubMed:29712925). Also involved in pre-mRNA alternative splicing regulation: binds to splice sites in pre-mRNA and regulates splice site selection (PubMed:12604611). Binds to TSC22D1 transcripts, thereby inhibiting their translation and negatively regulating TGF-beta- mediated transcription of COL1A2 (By similarity). 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' (PubMed:18809583). Binds to promoters that contain a Y-box (5'- CTGATTGGCCAA-3'), such as MDR1 and HLA class II genes (PubMed:18809583, PubMed:8188694). Promotes separation of DNA strands that contain mismatches or are modified by cisplatin (PubMed:14718551). Has endonucleolytic activity and can introduce nicks or breaks into double- stranded DNA, suggesting a role in DNA repair (PubMed:14718551). The secreted form acts as an extracellular mitogen and stimulates cell migration and proliferation (PubMed:19483673).

Cellular Location
Cytoplasm. Nucleus. Cytoplasmic granule. Secreted. Secreted, extracellular exosome. Cytoplasm, P-body {ECO:0000250|UniProtKB:P62960}. 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)

Anti-YBX1 (pS102) Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot

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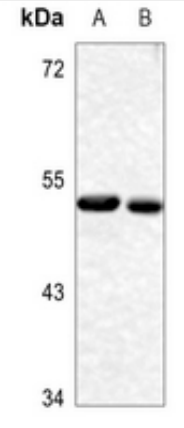
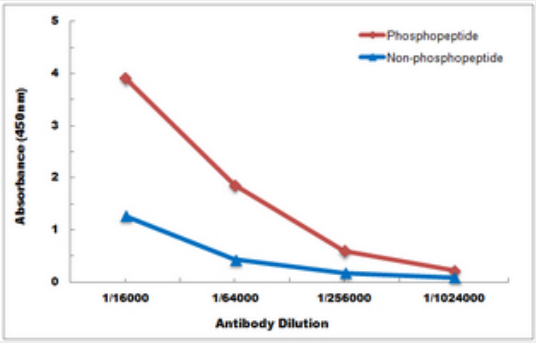
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

Anti-YBX1 (pS102) Antibody - Images



Western blot analysis of YBX1 (pS102) expression in mouse brain (A), rat brain (B) whole cell lysates.



Direct ELISA antibody dose-response curve using Anti-YBX1 (pS102) Antibody. Antigen (phosphopeptide and non-phosphopeptide) concentration is 5 ug/ml. Goat Anti-Rabbit IgG (H&L) - HRP was used as the secondary antibody, and signal was developed by TMB substrate.

Anti-YBX1 (pS102) Antibody - Background

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human YBX1. The exact sequence is proprietary.