

Anti-YBX1 / YB1 Antibody (clone 4F12)

Mouse Anti Human Monoclonal Antibody Catalog # ALS17987

Specification

Anti-YBX1 / YB1 Antibody (clone 4F12) - Product Information

Application WB, IHC-P, IF, E

Primary Accession
Predicted
Human
Host
Clonality
Isotype
Calculated MW
P67809
Human
Mouse
Monoclonal
IgG2a,k
35924

Dilution WB~~1:1000 IHC-P~~N/A IF~~1:50~200

E~~N/A

Anti-YBX1 / YB1 Antibody (clone 4F12) - Additional Information

Gene ID 4904

Alias Symbol
Other Names

YBX1

YBX1, CBF-A, DBPB, CSDB, DNA-binding protein B, MDR-NF1, NSEP-1, NSEP1, Y box binding protein 1, Y-box transcription factor, Y-box-binding protein 1, YB-1, BP-8, CSDA2, EFI-A, Enhancer factor I subunit A, YB1

Target/Specificity Human YBX1 / YB1

Reconstitution & Storage

Protein A purified

Precautions

Anti-YBX1 / YB1 Antibody (clone 4F12) is for research use only and not for use in diagnostic or therapeutic procedures.

Anti-YBX1 / YB1 Antibody (clone 4F12) - 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: 14718551</a href="http://www.uniprot.org/citations/14718551" target="_blank">14718551</a h



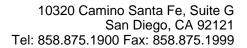
href="http://www.uniprot.org/citations/18809583" target=" blank">18809583, PubMed:31358969, PubMed:8188694). Predominantly acts as a RNA-binding protein: binds preferentially to the 5'-[CU]CUGCG-3' RNA motif and specifically recognizes mRNA transcripts modified by C5-methylcytosine (m5C) (PubMed:19561594, 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 / YB1 Antibody (clone 4F12) - Protocols

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





• Western Blot

- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- <u>Immunoprecipitation</u>
- Flow Cytomety
- Cell Culture

Anti-YBX1 / YB1 Antibody (clone 4F12) - Images