

**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	P67809
Predicted	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG2a,k
Calculated MW	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	YBX1
Other Names	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, EFL-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

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'- CTGATTGCCAA-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](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

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