

YB1 (15K16) Rabbit Monoclonal Antibody
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Catalog # AP93670**Specification**

YB1 (15K16) Rabbit Monoclonal Antibody - Product Information

Application	WB, IHC, IF, FC, ICC, IP
Primary Accession	P67809
Reactivity	Human, Mouse
Clonality	Monoclonal
Calculated MW	35924

YB1 (15K16) Rabbit Monoclonal Antibody - Additional Information**Gene ID** 4904**Other Names**

Y-box-binding protein 1, YB-1, CCAAT-binding transcription factor I subunit A, CBF-A, DNA-binding protein B, Nuclease-sensitive element-binding protein 1, Y-box transcription factor, YBX1 (http://www.genenames.org/cgi-bin/gene_symbol_report?hgnc_id=8014 target="_blank">HGNC:8014)

Dilution

WB~~1:1000
IHC~~1:100~500
IF~~1:50~200
FC~~1:10~50
ICC~~N/A
IP~~N/A

Storage Conditions

-20°C

YB1 (15K16) Rabbit Monoclonal 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](http://www.uniprot.org/citations/10817758), PubMed:[11698476](http://www.uniprot.org/citations/11698476), PubMed:[14718551](http://www.uniprot.org/citations/14718551), PubMed:[18809583](http://www.uniprot.org/citations/18809583), PubMed:[31358969](http://www.uniprot.org/citations/31358969), PubMed:[8188694](http://www.uniprot.org/citations/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:<a

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

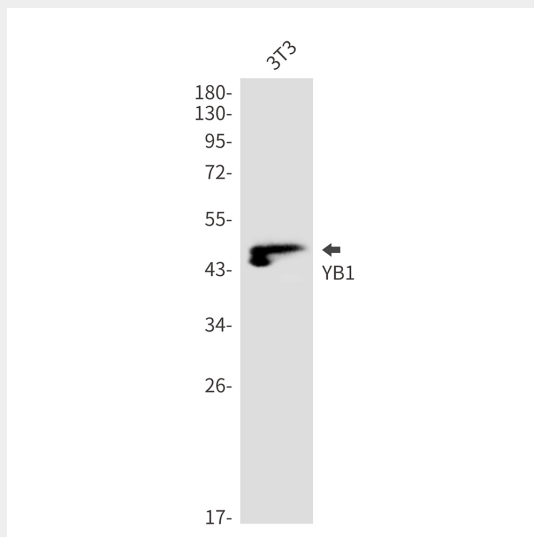
YB1 (15K16) Rabbit Monoclonal Antibody - Protocols

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](#)

YB1 (15K16) Rabbit Monoclonal Antibody - Images



Western blot detection of YB1 in HeLa, C2C12 cell lysates using YB1 antibody (1:1000 diluted).