



Rabbit Anti-YB1 antibody

SL5921R

Product Name:	YB1
Chinese Name:	核酸敏感元件Binding protein1抗体
Alias:	BP 8; CBF-A; binding transcription factor I subunit A; YBX1; 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; 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.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	36kDa
Cellular localization:	The nucleuscytoplasmicSecretory protein
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human YB1:51-150/324
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	The Y-box binding protein 1 (YB1) is a pluripotent DNA/RNA-binding factor which regulates gene expression through transcription and translation. YB1 has been shown to

be a marker of tumour aggressiveness and belongs to the cold-shock domain family.

Function:

Mediates pre-mRNA alternative splicing regulation. Binds to splice sites in pre-mRNA and regulates splice site selection. Binds and stabilizes cytoplasmic mRNA. Contributes to the regulation of translation by modulating the interaction between the mRNA and eukaryotic initiation factors (By similarity). Regulates the transcription of numerous genes. Its transcriptional activity on 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 (in vitro). May play a role in DNA repair. Component of the CRD-mediated complex that promotes MYC mRNA stability. Binds preferentially to the 5'-[CU]CUGCG-3' motif in vitro.

The secreted form acts as an extracellular mitogen and stimulates cell migration and proliferation.

Subunit:

Identified in a histone pre-mRNA complex, at least composed of ERI1, LSM11, SLBP, SNRPB, SYNCRIP and YBX1 (By similarity). Component of the coding region determinant (CRD)-mediated complex, composed of DHX9, HNRNPU, IGF2BP1, SYNCRIP and YBX1. Identified in a mRNP complex, at least composed of DHX9, DDX3X, ELAVL1, HNRNPU, IGF2BP1, ILF3, PABPC1, PCBP2, PTBP2, STAU1, STAU2, SYNCRIP and YBX1. Identified in a mRNP granule complex, at least composed of ACTB, ACTN4, DHX9, ERG, HNRNPA1, HNRNPA2B1, HNRNPAB, HNRNPD, HNRNPL, HNRNPR, HNRNPU, HSPA1, HSPA8, IGF2BP1, ILF2, ILF3, NCBP1, NCL, PABPC1, PABPC4, PABPN1, RPLP0, RPS3, RPS3A, RPS4X, RPS8, RPS9, SYNCRIP, TROVE2, YBX1 and untranslated mRNAs. Component of the U11/U12 snRNPs that are part of the U12-type spliceosome. Interacts with IGF2BP1 and RBBP6. Component of cytoplasmic messenger ribonucleoprotein particles (mRNPs). Interacts with AKT1, MBNL1, SFRS9, ALYREF/THOC4, MSH2, XRCC5, WRN and NCL. Can bind to DNA as a homomeric form, (EFI-A)_n or as a heteromeric form in association with EFI-B. Homodimer in the presence of ATP. Interacts (via C-terminus) with APEX1 (via N-terminus); the interaction is increased with APEX1 acetylated at 'Lys-6' and 'Lys-7'. Interacts with EIF2C1 and EIF2C2.

Subcellular Location:

Cytoplasm. Nucleus. Cytoplasmic granule. Secreted. Note=Localized in cytoplasmic mRNP granules containing untranslated mRNAs. Shuttles between nucleus and cytoplasm. Predominantly cytoplasmic in proliferating cells. Cytotoxic stress and DNA damage enhance translocation to the nucleus. Localized with DDX1, MBNL1 and TIAL1 in stress granules upon stress. Secreted by mesangial and monocytic cells after inflammatory challenges. Translocates from the cytoplasm to the nucleus after and colocalizes with APEX1 in nuclear speckles after genotoxic stress.

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).

Similarity:

Contains 1 CSD (cold-shock) domain.

SWISS:

P67809

Gene ID:

4904

Database links:

[Entrez Gene: 4904](#)Human

[Entrez Gene: 22608](#)Mouse

[Entrez Gene: 500538](#)Rat

[Omim: 154030](#)Human

[SwissProt: P67809](#)Human

[SwissProt: P62960](#)Mouse

[SwissProt: P62961](#)Rat

[Unigene: 473583](#)Human

[Unigene: 258204](#)Mouse

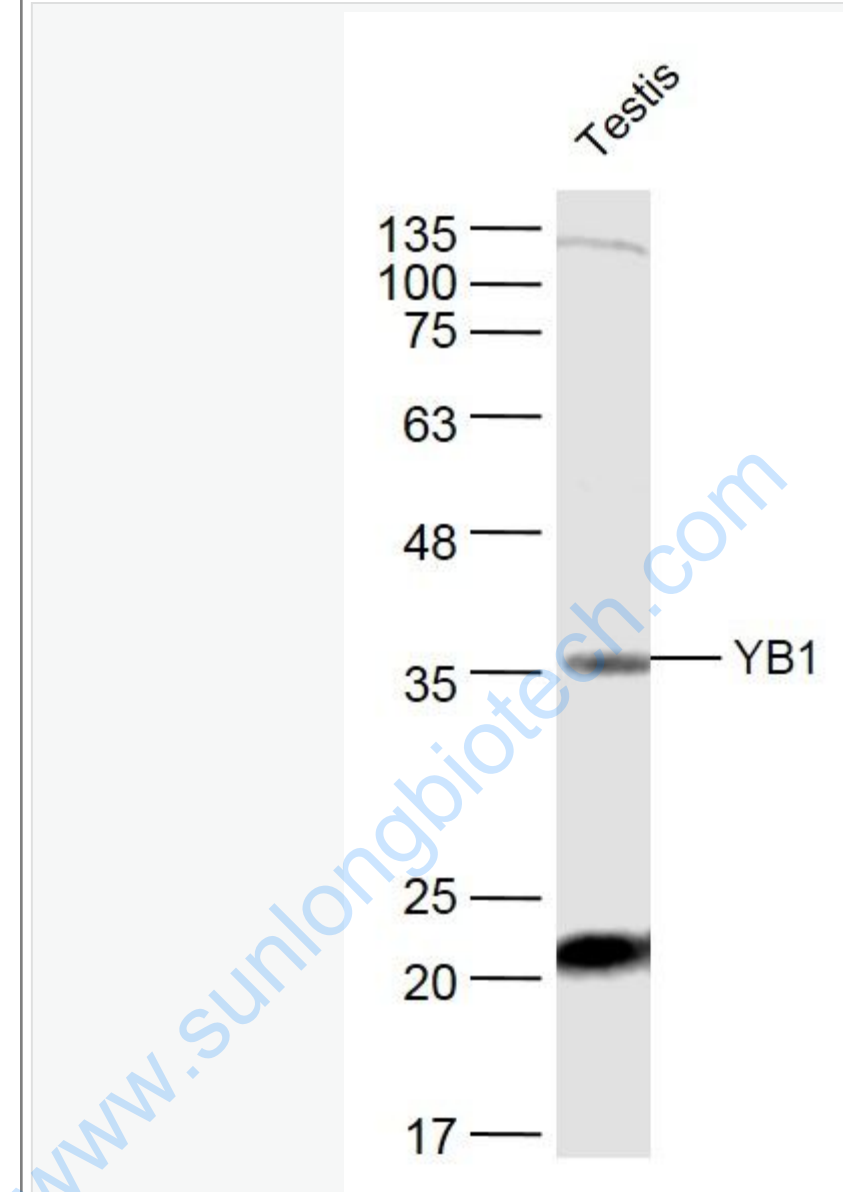
[Unigene: 110976](#)Rat

[Unigene: 194909](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Sample:

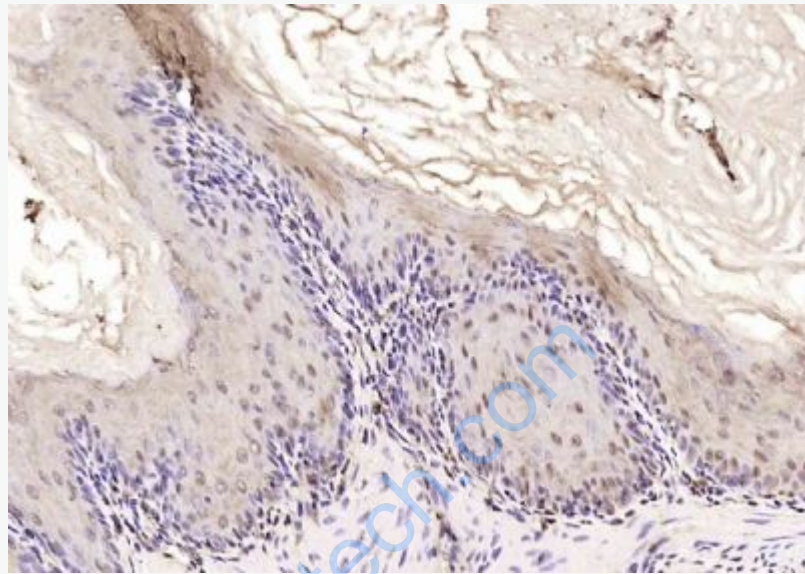
Testis (Mouse) Lysate at 40 ug

Primary: Anti-YB1 (SL5921R) at 1/300 dilution

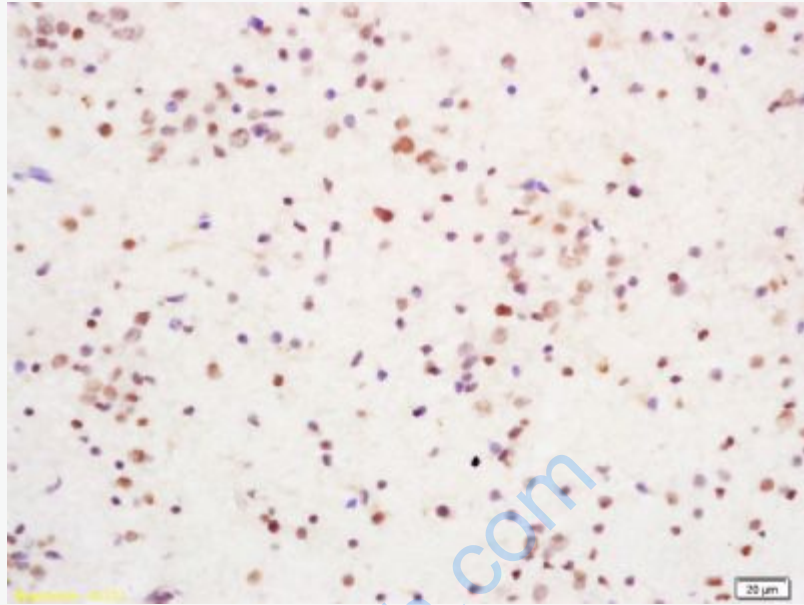
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 36 kD

Observed band size: 36 kD



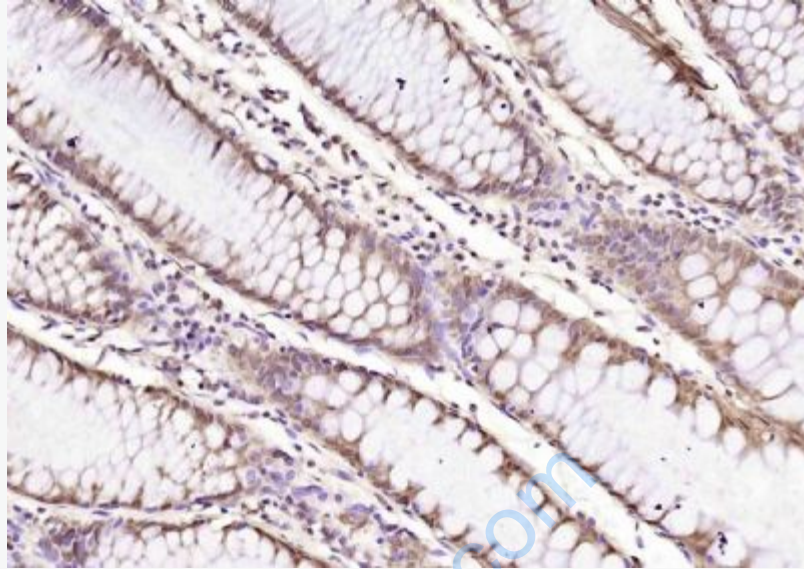
Paraformaldehyde-fixed, paraffin embedded (mouse stomach); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (YB1) Polyclonal Antibody, Unconjugated (SL5921R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Tissue/cell: human glioma tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37°C for 20 min;

Incubation: Anti-YBX-1/YB1 Polyclonal Antibody, Unconjugated(SL5921R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Paraformaldehyde-fixed, paraffin embedded (human colon carcinoma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (YB1) Polyclonal Antibody, Unconjugated (SL5921R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.