



# Mouse Anti-Human YB-1 Monoclonal antibody, clone 21A3 (CABT-L4479)

This product is for research use only and is not intended for diagnostic use.

## PRODUCT INFORMATION

### Product Overview

The 21A3 monoclonal antibody reacts with human Y-box binding protein 1 (YB-1) a highly conserved protein that has broad nucleic acid binding properties. YB-1 binds DNA and RNA and plays a role in multiple cellular processes including regulation of transcription and translation, pre-mRNA splicing, DNA reparation and mRNA packaging. YB-1 is also a component of messenger ribonucleoprotein complexes and may have a role in microRNA processing. Aberrant expression of YB-1 is associated with cancer proliferation in numerous tissues.

<b>Target</b>	Human YB-1
<b>Immunogen</b>	Recombinant human YB-1
<b>Isotype</b>	IgG1
<b>Source/Host</b>	Mouse
<b>Species Reactivity</b>	Human
<b>Clone</b>	21A3
<b>Purification</b>	Protein G purified. Purity>95%. Determined by SDS-PAGE
<b>Conjugate</b>	Functional Grade
<b>Applications</b>	Immunohistochemistry (paraffin), WB
<b>Molecular Weight</b>	150 kDa
<b>Format</b>	0.2 µM filtered liquid. Purified from tissue culture supernatant in an animal free facility

<b>Concentration</b>	Lot specific
<b>Size</b>	5 mg
<b>Buffer</b>	PBS, pH 7.0. Contains no stabilizers or preservatives. [low endotoxin azide-free]  Endotoxin level: <2EU/mg (<0.002EU/μg). Determined by LAL gel clotting assay Related dilution buffer: CABT-LB04
<b>Preservative</b>	None
<b>Storage</b>	The antibody solution should be stored undiluted at 4°C, and protected from prolonged exposure to light. Do not freeze.
<b>Ship</b>	Wet ice

## BACKGROUND

<b>Introduction</b>	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. The secreted form acts as an extracellular mitogen and stimulates cell migration and proliferation.
<b>Keywords</b>	YBX1;Y box binding protein 1;YB1;BP-8;CSDB;DBPB;YB-1;CSDA2;NSEP1;NSEP-1

## GENE INFORMATION

<b>Official Symbol</b>	Y box binding protein 1
<b>Synonyms</b>	YBX1; Y box binding protein 1; YB1; BP-8; CSDB; DBPB; YB-1; CSDA2; NSEP1; NSEP-1
<b>References</b>	Hanzawa, K., et al. (2010). "Y-box binding protein-1 expression in diffuse large B-cell lymphoma: an impact on prognosis in the rituximab era." Leuk Lymphoma 51(11): 2054-2062. PubMed;