abcam

Product datasheet

YB1 peptide ab12411

1 References 1 Image

Description

Product name	YB1 peptide
Purity	> 90 % HPLC.
Animal free	No
Nature	Synthetic

Specifications

Our **Abpromise guarantee** covers the use of **ab12411** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Applications	Blocking - Blocking peptide for Anti-YB1 antibody (**ab12148**)
Form	Liquid
Additional notes	*- First try to dissolve a small amount of peptide in either water or buffer. The more charged residues on a peptide, the more soluble it is in aqueous solutions.* *- If the peptide doesn't dissolve try an organic solvent e.g. DMSO, then dilute using water or buffer.* *- Consider that any solvent used must be compatible with your assay. If a peptide does not dissolve and you need to recover it, lyophilise to remove the solvent.* *- Gentle warming and sonication can effectively aid peptide solubilisation. If the solution is cloudy or has gelled the peptide may be in suspension rather than solubilised.* *- Peptides containing cysteine are easily oxidised, so should be prepared in solution just prior to use.*

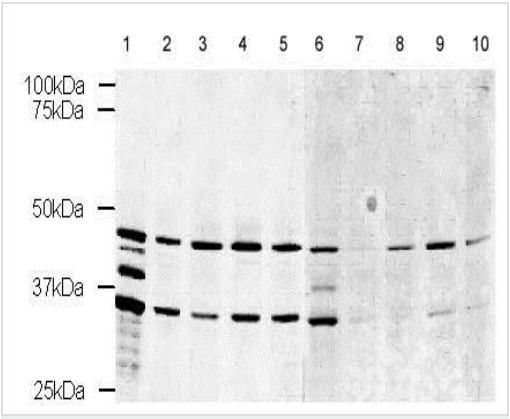
Preparation and Storage

Stability and Storage	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle. Information available upon request.

General Info

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. The secreted form acts as an extracellular mitogen and stimulates cell migration and proliferation.
Sequence similarities	Contains 1 CSD (cold-shock) domain.
Post-translational modifications	Ubiquitinated by RBBP6; leading to a decrease of YBX1 transcativational 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.
Cellular localization	Cytoplasm. Nucleus. Cytoplasmic granule. Secreted. 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.

Images



Western blot - YB1 peptide (ab12411)

Lanes 1 to 10: Ab12148 - Rabbit polyclonal to YB1 (1.4µg/ml)

Lanes 1 to 10: 20µg of cell lysate per lane

Lanes 6 to 10: blocking peptide used at 1µg/ml

Lane 1: HeLa Nuclear Extract

Lane 2: HeLa Whole Cell Lysate

Lane 3: MCF-7 Cell Lysate

Lane 4: Jurkat Whole Cell Lysate

Lane 5: HEK293 Whole Cell Lysate

Lane 6: HeLa Nuclear Extract + YB1 blocking peptide (ab12411)

Lane 7: HeLa Whole Cell Lysate + YB1 blocking peptide (ab12411)

Lane 8: MCF-7 Cell Lysate + YB1 blocking peptide (ab12411)

Lane 9: Jurkat Whole Cell Lysate + YB1 blocking peptide (ab12411)

Lane 10: HEK293 Whole Cell Lysate + YB1 blocking peptide (ab12411)

Expected MW: 36 kDa

A band of approx 36 kDa was partially blocked in several cell lines using a YB1 blo

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