abcam

Product datasheet

# Anti-YB1 antibody ab12148

★★★★★ 18 Abreviews 87 References 6 图像

## 概述

| | |
|---|---|
| **产品名称** | Anti-YB1抗体 |
| **描述** | **兔多克隆抗体**to YB1 |
| **宿主** | Rabbit |
| **特异性** | Replenishment batches of our polyclonal antibody, ab12148 are tested in WB. Previous batches were additionally validated in ICC/IF. This application is still expected to work and is covered by our Abpromise guarantee. You may also be interested in our alternative recombinant antibody, **ab76149**. |
| **经测试应用** | **适用于:** ICC/IF, WB |
| **种属反应性** | **与反应:** Human<br>**预测可用于:** Mouse, Rat, Xenopus laevis |
| **免疫原** | Synthetic peptide corresponding to Human YB1 aa 1-100 conjugated to keyhole limpet haemocyanin.<br>(Peptide available as **ab12411**) |
| **常规说明** | YB1 has a predicted band size of 36kDa. According to Evdolimova (1995) YB1 migrates by SDS-PAGE at 50kDa, which may be due to post-translational modification. YB1 is primarily detectable in the cytoplasm without any clear signal in nucleoli.<br>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.<br>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As |

## 性能

| | |
|---|---|
| **形式** | Liquid |
| **存放说明** | 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. |
| **存储溶液** | pH: 7.40<br>Preservative: 0.02% Sodium azide<br>Constituent: PBS |

| | |
|---|---|
| **纯度** | Immunogen affinity purified |
| **克隆** | **多克隆** |
| **同种型** | IgG |

## 应用

**The Abpromise guarantee** **Abpromise™承诺保证使用ab12148于以下的经测试应用**

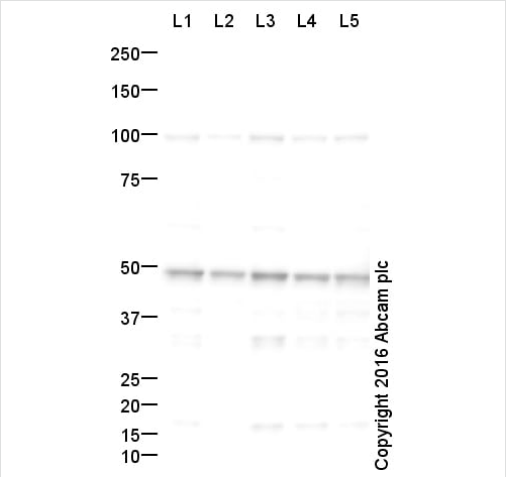
"应用说明"部分 下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

| 应用 | Ab评论 | 说明 |
|---|---|---|
| **ICC/IF** | ★★★★☆ (3) | Use a concentration of 1 µg/ml. |
| **WB** | ★★★★★ (9) | Use a concentration of 1 - 1.4 µg/ml. Detects a band of approximately 50 kDa (predicted molecular weight: 36 kDa). The 50 kDa band detected is consistent with the literature describing migration of YB1. |

## 靶标

| | |
|---|---|
| **功能** | 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.<br>The secreted form acts as an extracellular mitogen and stimulates cell migration and proliferation. |
| **序列相似性** | Contains 1 CSD (cold-shock) domain. |
| **翻译后修饰** | Ubiquitinated by RBBP6; leading to a decrease of YBX1 transcativational ability.<br>In the absence of phosphorylation the protein is retained in the cytoplasm.<br>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. |
| **细胞定位** | 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. |

## 图片




Western blot - Anti-YB1 antibody (ab12148)

**All lanes :** Anti-YB1 antibody (ab12148) at 1 µg/ml

**Lane 1 :** HeLa (Human epithelial carcinoma cell line) Whole Cell Lysate
**Lane 2 :** MCF7 (Human breast adenocarcinoma cell line) Whole Cell Lysate
**Lane 3 :** Jurkat (Human) Whole Cell Lysate
**Lane 4 :** T-47D whole cell lysate (**ab14899**)
**Lane 5 :** MDA-MB-231 (Human breast adenocarcinoma cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

**Secondary**
**All lanes :** Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/50000 dilution

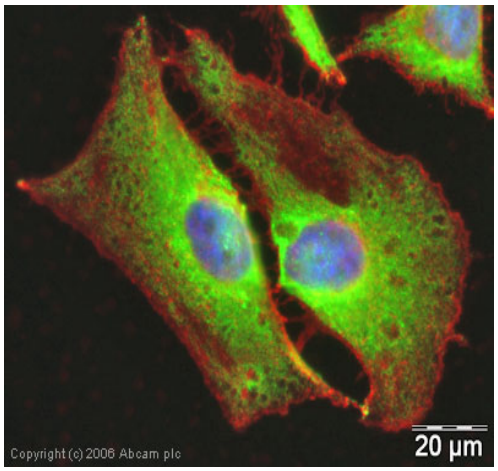
Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 36 kDa
**Observed band size:** 50 kDa
**Additional bands at:** 100 kDa. We are unsure as to the identity of these extra bands.

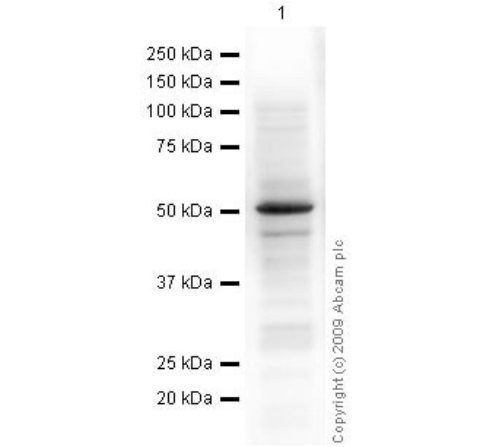
**Exposure time:** 4 minutes

This blot was produced using a 4-12% Bis-tris gel under the MOPS buffer system. The gel was run at 200V for 50 minutes before being transferred onto a Nitrocellulose membrane at 30V for 70 minutes. The membrane was then blocked for an hour using 3% Milk before being incubated with ab12148 overnight at 4°C. Antibody binding was detected using an anti-rabbit antibody conjugated to HRP, and visualised using ECL development solution **ab133406**.




Immunocytochemistry/ Immunofluorescence - Anti-YB1 antibody (ab12148)

ICC/IF image of ab12148 stained human HeLa cells. The cells were PFA fixed (3.7% PFA, 5 min) and incubated with the antibody (ab12148, 1µg/ml) for 1h at room temperature. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Image-iT™ FX Signal Enhancer was used as the primary blocking agent, 5% BSA (in TBS-T) was used for all other blocking steps. DAPI was used to stain the cell nuclei (blue). Alexa Fluor® 594 WGA was used to label plasma membranes (red).




Western blot - Anti-YB1 antibody (ab12148)

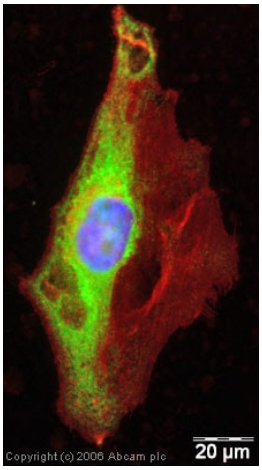
Anti-YB1 antibody (ab12148) at 1 µg/ml + HEK293 Whole Cell Lysate Transiently Overexpressing YB1 at 10 µg

**Secondary**
Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Performed under reducing conditions.

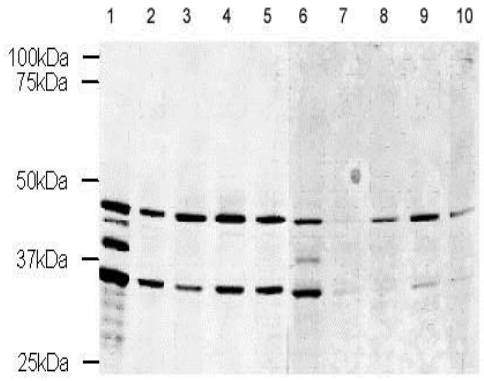
**Predicted band size:** 36 kDa
**Observed band size:** 50 kDa

YB1 has a predicted band size of 36kDa based on its primary sequence (SwissProt). According to Evdolimova (1995) YB1 migrates by SDS-PAGE at 50kDa, which may be due to post-translational modification




Immunocytochemistry/ Immunofluorescence - Anti-YB1 antibody (ab12148)

ICC/IF image of ab12148 stained human HeLa cells. The cells were PFA fixed (3.7% PFA, 5 min) and incubated with the antibody (ab12148, 1µg/ml) for 1h at room temperature. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Image-iT™ FX Signal Enhancer was used as the primary blocking agent, 5% BSA (in TBS-T) was used for all other blocking steps. DAPI was used to stain the cell nuclei (blue). Alexa Fluor® 594 WGA was used to label plasma membranes (red).



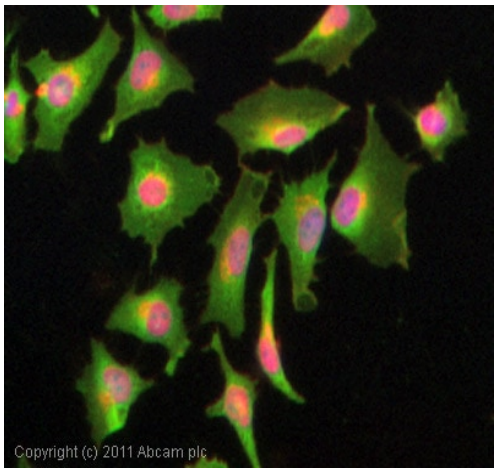

Western blot - Anti-YB1 antibody (ab12148)

**All lanes :** Anti-YB1 antibody (ab12148) at 1.4 µg/ml

**Lane 1 :** HeLa Nuclear lysate
**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 lysate with YB1 peptide (**ab12411**) at 1 µg/ml
**Lane 7 :** HeLa Whole cell lysate with YB1 peptide (**ab12411**) at 1 µg/ml
**Lane 8 :** MCF-7 cell lysate with YB1 peptide (**ab12411**) at 1 µg/ml
**Lane 9 :** Jurkat whole cell lysate with YB1 peptide (**ab12411**) at 1 µg/ml
**Lane 10 :** HEK293 whole cell lysate with YB1 peptide (**ab12411**) at 1 µg/ml

Lysates/proteins at 20 µg per lane.

**Predicted band size:** 36 kDa
**Observed band size:** 36,50 kDa




Immunocytochemistry/ Immunofluorescence - Anti-YB1 antibody (ab12148)

ICC/IF image of ab12148 stained HeLa cells. The cells were 4% PFA fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab12148, 1µg/ml) overnight at +4°C. The secondary antibody (green) was DyLight® 488 goat anti-rabbit IgG - H&L, pre-adsorbed (**ab96899**) used at a 1/250 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.



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