abcam

Product datasheet

# Anti-RPL5 antibody ab86863

11 References 4 Images

## Overview

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|---|---|
| **Product name** | Anti-RPL5 antibody |
| **Description** | Rabbit polyclonal to RPL5 |
| **Host species** | Rabbit |
| **Tested applications** | **Suitable for:** IP, IHC-P, WB, ICC/IF |
| **Species reactivity** | **Reacts with:** Human |
| **Immunogen** | Synthetic peptide corresponding to Human RPL5 aa 200 to the C-terminus conjugated to keyhole limpet haemocyanin.<br>(Peptide available as **ab97494**) |
| **Positive control** | This antibody gave a positive signal Human fetal liver tissue lysate as well as the following whole cell lysates: HepG2; MEL-1; Jurkat. |
| **General notes** | 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><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 |

## Properties

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|---|---|
| **Form** | Liquid |
| **Storage instructions** | 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. |
| **Storage buffer** | pH: 7.40<br>Preservative: 0.02% Sodium azide<br>Constituent: PBS<br><br>Batches of this product that have a concentration < 1mg/ml may have BSA added as a stabilising agent. If you would like information about the formulation of a specific lot, please contact our scientific support team who will be happy to help. |
| **Purity** | Immunogen affinity purified |

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| **Clonality** | Polyclonal |
| **Isotype** | IgG |

## Applications

**The Abpromise guarantee** Our **Abpromise guarantee** covers the use of ab86863 in the following tested applications.

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

| Application | Abreviews | Notes |
|---|---|---|
| **IP** | | Use a concentration of 5 µg/ml. |
| **IHC-P** | | Use a concentration of 1 µg/ml. Perform heat mediated antigen retrieval before commencing with IHC staining protocol. |
| **WB** | | Use a concentration of 1 µg/ml. Detects a band of approximately 34 kDa (predicted molecular weight: 34 kDa). |
| **ICC/IF** | | Use a concentration of 5 µg/ml. |

## Target

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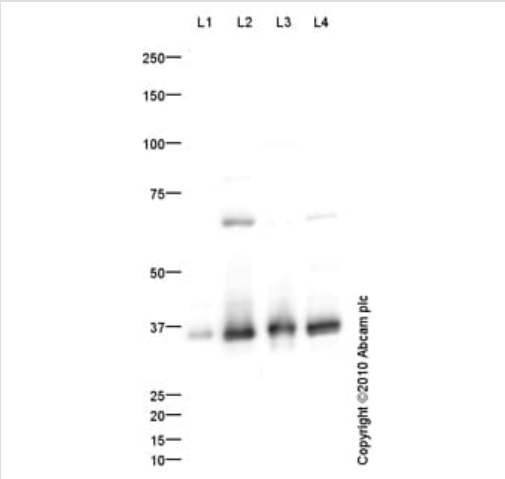
|---|---|
| **Function** | Required for rRNA maturation and formation of the 60S ribosomal subunits. This protein binds 5S RNA. |
| **Involvement in disease** | Defects in RPL5 are the cause of Diamond-Blackfan anemia type 6 (DBA6) [MIM:612561]. DBA6 is a form of Diamond-Blackfan anemia, a congenital non-regenerative hypoplastic anemia that usually presents early in infancy. Diamond-Blackfan anemia is characterized by a moderate to severe macrocytic anemia, erythroblastopenia, and an increased risk of malignancy. 30 to 40% of Diamond-Blackfan anemia patients present with short stature and congenital anomalies, the most frequent being craniofacial (Pierre-Robin syndrome and cleft palate), thumb and urogenital anomalies. |
| **Sequence similarities** | Belongs to the ribosomal protein L18P family. |
| **Cellular localization** | Cytoplasm. Nucleus > nucleolus. |

## Images




Western blot - Anti-RPL5 antibody (ab86863)

**All lanes :** Anti-RPL5 antibody (ab86863) at 1 µg/ml

**Lane 1 :** Liver (Human)Tissue Lysate - Fetal tissue
**Lane 2 :** HepG2 (Human hepatocellular liver carcinoma cell line) Whole Cell Lysate
**Lane 3 :** MEL-1 (Human embryonic stem cell, male cell line) Whole Cell Lysate (**ab27198**)
**Lane 4 :** Jurkat (Human T cell lymphoblast-like cell line) Whole Cell Lysate

Lysates/proteins at 10 µg per lane.

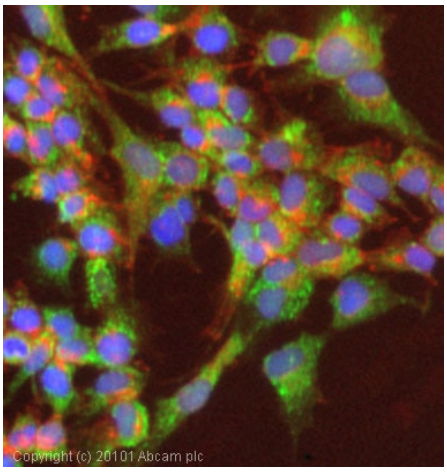
**Secondary**
**All lanes :** Goat polyclonal to Rabbit IgG - H&L - Pre-Adsorbed (HRP) at 1/3000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

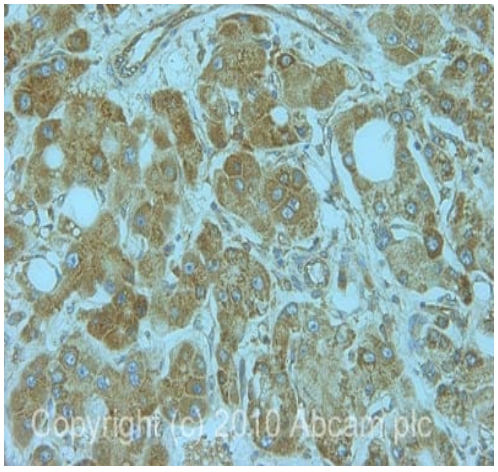
**Predicted band size:** 34 kDa
**Observed band size:** 34 kDa
**Additional bands at:** 68 kDa. We are unsure as to the identity of these extra bands.

**Exposure time:** 1 minute



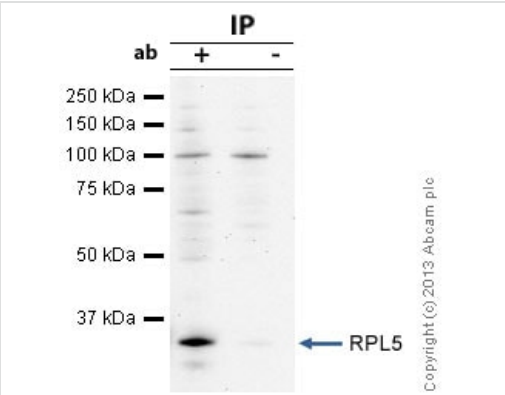

Immunocytochemistry/ Immunofluorescence - Anti-RPL5 antibody (ab86863)

ICC/IF image of ab86863 stained HepG2 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 (ab86863, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 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. This antibody also gave a positive result in 4% PFA fixed (10 min) HeLa cells at 5µg/ml, and in 100% methanol fixed (5 min) HeLa, HepG2 and MCF7 cells at 5µg/ml




Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-RPL5 antibody (ab86863)

IHC image of RPL5 staining in human liver carcinoma formalin fixed paraffin embedded tissue section, performed on a Leica Bond™ system using the standard protocol F. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH6, epitope retrieval solution 1) for 20 mins. The section was then incubated with ab86863, 1µg/ml, for 15 mins at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.




Immunoprecipitation - Anti-RPL5 antibody (ab86863)

RPL5 was immunoprecipitated using 0.5mg HepG2 whole cell extract, 5µg of Rabbit polyclonal to RPL5 and 50µl of protein G magnetic beads (+). No antibody was added to the control (-).
The antibody was incubated under agitation with Protein G beads for 10min, HepG2 whole cell extract lysate diluted in RIPA buffer was added to each sample and incubated for a further 10min under agitation.
Proteins were eluted by addition of 40µl SDS loading buffer and incubated for 10min at 70$^{o}$C; 10µl of each sample was separated on a SDS PAGE gel, transferred to a nitrocellulose membrane, blocked with 5% BSA and probed with ab86863.
Secondary: Mouse monoclonal [SB62a] Secondary Antibody to Rabbit IgG light chain (HRP) (**ab99697**).
Band: 34kDa, non specific band - 68kDa as present in test (lane 1) and control (lane 2); 68kDa: We are unsure as to the identity of this extra band; RPL5



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