### Overview

<table>
<thead>
<tr>
<th><strong>Product name</strong></th>
<th>Anti-IGF2BP1/IMP1 antibody</th>
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<tbody>
<tr>
<td><strong>Description</strong></td>
<td>Rabbit polyclonal to IGF2BP1/IMP1</td>
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<tr>
<td><strong>Host species</strong></td>
<td>Rabbit</td>
</tr>
<tr>
<td><strong>Tested applications</strong></td>
<td>Suitable for: IHC-P, WB</td>
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<td><strong>Species reactivity</strong></td>
<td>Reacts with: Dog, Human</td>
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<tr>
<td></td>
<td>Predicted to work with: Mouse, Rat, Sheep, Rabbit, Horse, Chicken, Guinea pig, Cow, Cat, Zebrafish</td>
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<tr>
<td><strong>Immunogen</strong></td>
<td>Synthetic peptide corresponding to Human IGF2BP1/IMP1 aa 36-85 (N terminal). Sequence: KSGYAFVDPCDEHWAMKAIETFSGKVELQGKRLEIEH SVPKKQRSRKiQI</td>
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<tr>
<td></td>
<td>(Peptide available as ab100852)</td>
</tr>
<tr>
<td><strong>Positive control</strong></td>
<td>Jurkat whole cell lysate (ab7899)</td>
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<tr>
<td><strong>General notes</strong></td>
<td>This product was previously labelled as IGF2BP1</td>
</tr>
</tbody>
</table>

### Properties

<table>
<thead>
<tr>
<th><strong>Form</strong></th>
<th>Liquid</th>
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<tbody>
<tr>
<td><strong>Storage instructions</strong></td>
<td>Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles.</td>
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<tr>
<td><strong>Storage buffer</strong></td>
<td>Preservative: 0.09% Sodium azide Constituents: 2% Sucrose, PBS</td>
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<tr>
<td><strong>Purity</strong></td>
<td>Immunogen affinity purified</td>
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<tr>
<td><strong>Purification notes</strong></td>
<td>ab82968 is purified by a peptide affinity chromatography method.</td>
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<tr>
<td><strong>Clonality</strong></td>
<td>Polyclonal</td>
</tr>
<tr>
<td><strong>Isotype</strong></td>
<td>IgG</td>
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</table>

### Applications

**Run BLAST with**

**Run BLAST with**
Function

RNA-binding factor that affects mRNA nuclear export, localization, stability and translation. Component of the CRD-mediated complex that promotes MYC mRNA stabilization. Regulates mRNA stability during the integrated cellular stress response (ISR) in stress granules (SGs). Stabilizes the BTRC/FBW1A mRNA from degradation by disrupting mRNA-dependent interaction with AGO2. Identified in a HCV IRES-mediated translation complex, that enhances translation at the Hepatitis C virus (HCV) RNA-replicon via the internal ribosome entry site (IRES), but does not affect 5'cap-dependent translation. Acts as a HIV-1 retrovirus restriction factor that reduces HIV-1 assembly by inhibiting viral RNA packaging, assembly and processing of HIV-1 GAG protein on cellular membranes. Binds to mRNAs in stress granules (SGs). Binds to the stem-loop IV of the 5'-UTR and to the variable region and the poly(U-C) motif of the 3'-UTR of the HCV RNA-replicon. Binds to the 5'-UTR of the insulin-like growth factor 2 (IGF2) mRNA and regulates its subcellular localization and translation. Binds both to the coding region mRNA stability determinant (CRD) and to AU-rich sequences in the 3'-UTR of the MYC and CD44 mRNAs and stabilizes these mRNAs. Binds to the fourth and fifth exons of the oncofetal H19 and neuron-specific TAU mRNAs and regulates their localizations. Binds to the adenine-rich autoregulatory sequence (ARS) 5'-UTR of the PABPC1 mRNA and is involved in its translational repression. The RNA-binding activity to ARS is stimulated by PABPC1. Binds to the coding sequence region of BTRC/FBW1A mRNA and mediates stabilization of BTRC/FBW1A and MYC mRNAs in response to beta-catenin signaling. Binding to RNA employs a cooperative, sequential mechanism of homo- or heterodimerisation. Also involved in growth or survival of lung-cancer cells. Protects the MYC and MDR-1 mRNAs from cleavage by a endoribonuclease, thus prolonging their stabilities (By similarity). Binds to the 3'-UTR axonal localization signal (ALS) of TAU mRNA (By similarity). Binds to a conserved 54-nucleotide element in the 3'-UTR of the beta actin mRNA known as the ‘zipcode’ (By similarity). Promotes translocation of the beta-actin mRNA to dendrites (By similarity). May act as a regulator of mRNA transport to activated synapses in response to synaptic activity.

Tissue specificity


Sequence similarities

Belongs to the RRM IMP/VICKZ family.
Contains 4 KH domains.
Contains 2 RRM (RNA recognition motif) domains.

Domain

The third and fourth KH domains encompass the protein dimerization motif and are necessary and sufficient for RNA binding. The four KH domains are important for granule formation and SGs targeting. Contains two nuclear export signals, situated within the second and fourth KH domains. The four KH domains are important to suppress HIV-1 infectivity.

Our Abpromise guarantee covers the use of ab82968 in the following tested applications.

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

<table>
<thead>
<tr>
<th>Application</th>
<th>Abreviews</th>
<th>Notes</th>
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<tbody>
<tr>
<td>IHC-P</td>
<td>🌟🌟🌟🌟🌟</td>
<td>1/300.</td>
</tr>
<tr>
<td>WB</td>
<td>🌟🌟🌟🌟🌟</td>
<td>Use a concentration of 1 µg/ml. Predicted molecular weight: 63 kDa. Good results were obtained when blocked with 5% non-fat dry milk in 0.05% PBS-T.</td>
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</table>
Post-translational modifications

Phosphorylated. Phosphorylation may influence mRNA translation.

Cellular localization

Nucleus. Cytoplasm. Cell projection > lamellipodium. Cell projection > dendrite. Cell projection > dendritic spine. Localized in cytoplasmic mRNP granules containing untranslated mRNAs. Targeted to stress granules (SGs), but not processing bodies (PBs), during cellular stress. Colocalizes with G3BP1 and TIAL1 in SGs. Colocalizes with HIV-1 GAG at the cell edges. Found in lamellipodia of the leading edge, in the perinuclear region, and beneath the plasma membrane. The subcytoplasmic localization is cell specific and regulated by cell contact and growth. Colocalized with H19 RNA at lamellipodia. Colocalized with CD44 mRNA in RNP granules. Nuclear export is mediated by XPO1/CRM1. In motile cells, is transported towards the leading edge into the cortical region of the lamellipodia where it is connected to microfilaments (By similarity). Present in the form of granules and into F-actin-rich protrusion of dendrites, spines and subsynaptic sites (By similarity). Colocalizes with beta-actin mRNA in dendrites and spines (By similarity). Exhibited rapid, bidirectional movements in dendrites and spines (By similarity). Neuronal depolarization by KCl induces its rapid efflux from the cell body into dendrites.

Images


Anti-IGF2BP1/IMP1 antibody (ab82968) at 1 µg/ml (in 5% skim milk / PBS buffer) + jurkat cell lysate at 10 µg

**Secondary**

HRP conjugated anti-Rabbit IgG at 1/50000 dilution

**Predicted band size:** 63 kDa

**Observed band size:** 65 kDa

*why is the actual band size different from the predicted?*

**Lanes 1 & 4:** Anti-IGF2BP1/IMP1 antibody (ab82968) at 1/1000 dilution (in 5% milk for 1 1/2 hours at 25°C)

**Lanes 2 & 5:** Anti-IGF2BP1/IMP1 antibody (ab82968) at 1/1000 dilution (in 0.5% milk for 1 1/2 hours at 25°C)

**Lanes 3 & 6:** Anti-IGF2BP1/IMP1 antibody (ab82968) at 1/10000 dilution (in 0.5% milk for 1 1/2 hours at 25°C)

**Lane 1:** Whole cell lysate of Dog Osteosarcoma (high-expressing cell lines) blocked with 5% milk in TBST for 15 hours at 4°C

**Lanes 2-3:** Whole cell lysate of Dog Osteosarcoma (high-expressing cell lines) blocked with 0.5% milk in TBST for 15 hours at 4°C

**Lane 4:** Whole cell lysate of Dog Osteosarcoma (low-expressing cell lines) blocked with 5% milk in TBST for 15 hours at 4°C

**Lanes 5-6:** Whole cell lysate of Dog Osteosarcoma (low-expressing cell lines) blocked with 0.5% milk in TBST for 15 hours at 4°C

Lysates/proteins at 50 µg per lane.

**Secondary**

**All lanes:** An HRP-conjugated Goat anti-rabbit IgG polyclonal at 1/10000 dilution

Developed using the ECL technique.

Performed under reducing conditions.

**Predicted band size:** 63 kDa
Observed band size: 65 kDa why is the actual band size different from the predicted?

Exposure time: 28 minutes

No bands were visible at the higher dilution, even with a stronger detection substrate.

ab82968 staining IGF2BP1/IMP1 in dog kidney, sebaceous gland, and epidermis by Immunohistochemistry (paraffin embedded sections). Tissue was fixed with formalin, an antigen retrieval step was performed using a pH6 antigen retrieval solution. Tissue was then blocked followed by incubation with the primary antibody, at a 1/500 dilution, for 16 hours at 4°C. A Biotin-conjugated goat polyclonal was used as secondary antibody at a 1/1000 dilution. Note that the brown staining in the epidermis section minus primary antibody is natural pigment, not inappropriate antibody binding.

Please note: All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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