

Product datasheet

Anti-IMP3 antibody [EPR12021-114] ab179807

KO VALIDATED Recombinant RabMAb

[1 References](#) [8 Images](#)

Overview

Product name	Anti-IMP3 antibody [EPR12021-114]
Description	Rabbit monoclonal [EPR12021-114] to IMP3
Host species	Rabbit
Tested applications	Suitable for: WB, IHC-P
Species reactivity	Reacts with: Human
Immunogen	Recombinant fragment within Human IMP3 aa 1-200. The exact sequence is proprietary. Database link: O00425
Positive control	IHC-P: Human lung cancer and fetal kidney tissues. WB: HeLa, 293T and BxPC-3 cell lysates. HeLa, HEK-293 and BxPC-3 whole cell lysates.
General notes	<p>Mouse, Rat: We have preliminary internal testing data to indicate this antibody may not react with these species. Please contact us for more information.</p> <p>This product is a recombinant monoclonal antibody, which offers several advantages including:</p> <ul style="list-style-type: none"> - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production <p>For more information see here.</p> <p>Our RabMAb[®] technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb[®] patents.</p> <p>We are constantly working hard to ensure we provide our customers with best in class antibodies. As a result of this work we are pleased to now offer this antibody in purified format. We are in the process of updating our datasheets. The purified format is designated 'PUR' on our product labels. If you have any questions regarding this update, please contact our Scientific Support team.</p> <p>Reproducibility is key to advancing scientific discovery and accelerating scientists' next breakthrough.</p> <p>Abcam is leading the way with our range of recombinant antibodies, knockout-validated antibodies and knockout cell lines, all of which support improved reproducibility.</p> <p>We are also planning to innovate the way in which we present recommended applications and species on our product datasheets, so that only applications & species that have been tested in</p>

our own labs, our suppliers or by selected trusted collaborators are covered by our Abpromise™ guarantee.

In preparation for this, we have started to update the applications & species that this product is Abpromise guaranteed for.

We are also updating the applications & species that this product has been “predicted to work with,” however this information is not covered by our Abpromise guarantee.

Applications & species from publications and Abreviews that have not been tested in our own labs or in those of our suppliers are not covered by the Abpromise guarantee.

Please check that this product meets your needs before purchasing. 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, as well as customer reviews and Q&As.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.20 Preservative: 0.01% Sodium azide Constituents: 59% PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR12021-114
Isotype	IgG

Applications

Our [Abpromise guarantee](#) covers the use of **ab179807** 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
WB		1/1000. Predicted molecular weight: 63 kDa. For unpurified use at 1/1000 - 1/5000.
IHC-P		1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol. See IHC antigen retrieval protocols . For unpurified use at 1/100 - 1/250.

Target

Function RNA-binding protein that act as a regulator of mRNA translation and stability. Binds to the 5'-UTR

of the insulin-like growth factor 2 (IGF2) mRNAs. Binds to sequences in the 3'-UTR of CD44 mRNA.

Tissue specificity

Expressed in fetal liver, fetal lung, fetal kidney, fetal thymus, fetal placenta, fetal follicles of ovary and gonocytes of testis, growing oocytes, spermatogonia and semen (at protein level). Expressed in cervix adenocarcinoma, in testicular, pancreatic and renal-cell carcinomas (at protein level). Expressed ubiquitously during fetal development at 8 and 14 weeks of gestation. Expressed in ovary, testis, brain, placenta, pancreatic cancer tissues and pancreatic cancer cell lines.

Sequence similarities

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

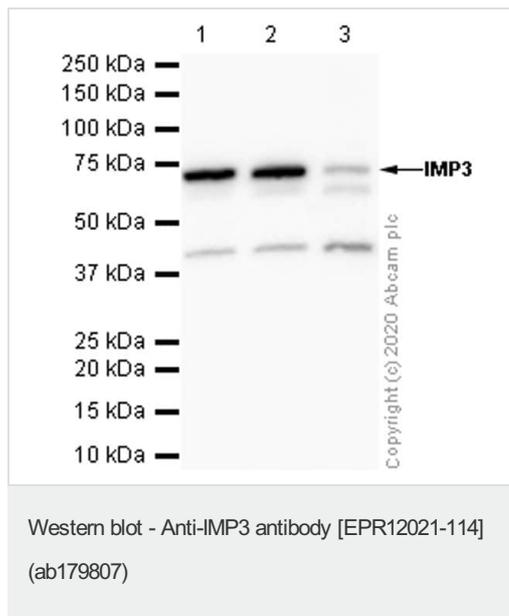
Domain

The third and fourth KH domains are important for binding to the untranslated region (UTR) of target mRNA.

Cellular localization

Nucleus. Cytoplasm. 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. Localized at the connecting piece and the tail of the spermatozoa. Colocalized with CD44 mRNA in RNP granules.

Images



Lanes 1-2 : Anti-IMP3 antibody [EPR12021-114] (ab179807) at 1/1000 dilution (Purified)

Lane 3 : Anti-IMP3 antibody [EPR12021-114] (ab179807) at 1/10000 dilution

Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

Lane 2 : HEK-293 (Human embryonic kidney epithelial cell) whole cell lysate

Lane 3 : BxPC-3 (Human pancreas adenocarcinoma epithelial cell) whole cell lysate

Lysates/proteins at 20 µg per lane.

Secondary

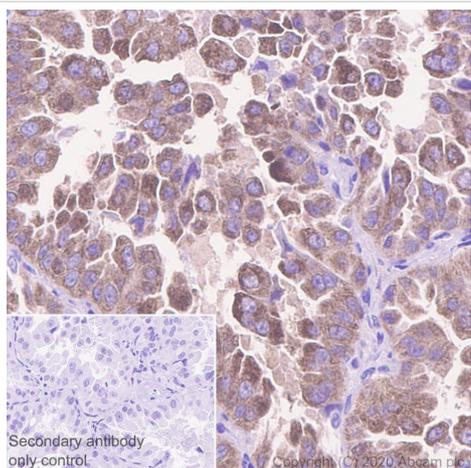
Lanes 1-2 : Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Lane 3 : Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/20000 dilution

Predicted band size: 63 kDa

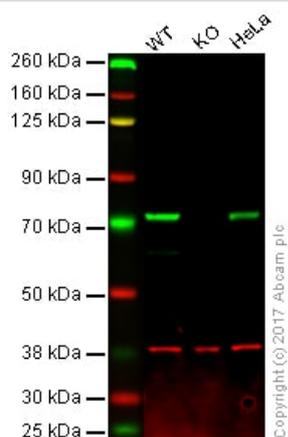
Observed band size: 69 kDa

[why is the actual band size different from the predicted?](#)



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IMP3 antibody [EPR12021-114] (ab179807)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of human lung cancer tissue sections labeling IMP3 with purified ab179807 at 1/1000 dilution (0.10 µg/mL). Heat mediated antigen retrieval using Bond™ Epitope Retrieval Solution 2 (pH 9.0). Rabbit specific IHC polymer detection kit HRP/DAB (ab209101) was used as the secondary antibody. Negative control: PBS instead of the primary antibody. Hematoxylin was used as a counterstain.



Western blot - Anti-IMP3 antibody [EPR12021-114] (ab179807)

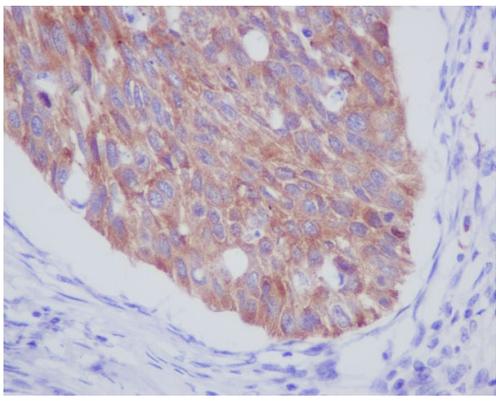
Lane 1: Wild-type HAP1 whole cell lysate (20 µg)

Lane 2: IGF2BP3 (IMP3) knockout HAP1 whole cell lysate (20 µg)

Lane 3: HeLa whole cell lysate (20 µg)

Lanes 1 - 3: Merged signal (red and green). Green - Unpurified ab179807 observed at 70 kDa. Red - loading control, ab9484, observed at 37 kDa.

Unpurified ab179807 was shown to specifically react with IGF2BP3 (IMP3) in wild-type HAP1 cells as signal was lost in IGF2BP3 (IMP3) knockout cells. Wild-type and IGF2BP3 (IMP3) knockout samples were subjected to SDS-PAGE. Ab179807 and ab9484 (Mouse anti GAPDH loading control) were incubated overnight at 4°C at 1/1000 dilution and 1/20,000 dilution respectively. Blots were developed with Goat anti-Rabbit IgG H&L (IRDye® 800CW) preabsorbed (ab216773) and Goat anti-Mouse IgG H&L (IRDye® 680RD) preabsorbed (ab216776) secondary antibodies at 1/20,000 dilution for 1 hour at room temperature before imaging.



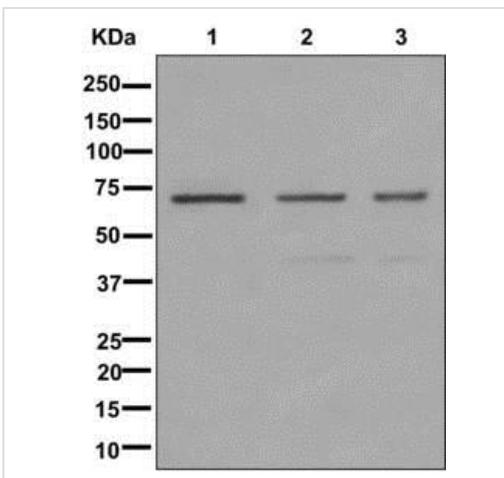
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IMP3 antibody [EPR12021-114] (ab179807)

Unpurified ab179807 at 1:100 staining IMP3 antibody in human lung cancer tissue by immunohistochemistry (FFPE).

Immunohistochemical analysis of paraffin-embedded human lung cancer tissue labeling IMP3 with ab179807 at 1/100 dilution.

Counter stained with hematoxylin.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Western blot - Anti-IMP3 antibody [EPR12021-114] (ab179807)

All lanes : Anti-IMP3 antibody [EPR12021-114] (ab179807) at 1/1000 dilution (unpurified)

Lane 1 : HeLa cell lysate

Lane 2 : 293T cell lysate

Lane 3 : BxPC-3 cell lysate

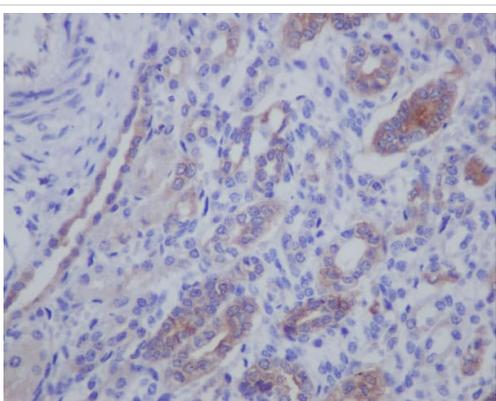
Lysates/proteins at 10 µg per lane.

Secondary

All lanes : HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 63 kDa

Observed band size: 69 kDa [why is the actual band size different from the predicted?](#)



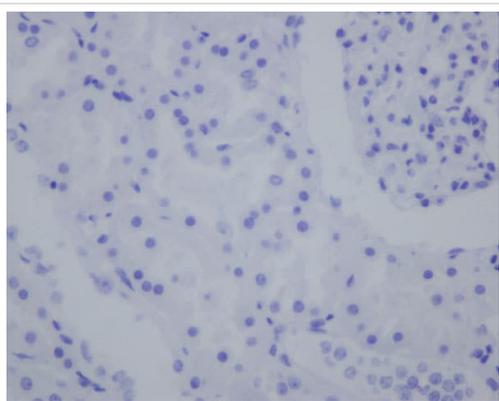
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IMP3 antibody [EPR12021-114] (ab179807)

Unpurified ab179807 at 1:100 staining IMP3 antibody in human fetal kidney tissue by immunohistochemistry (FFPE).

Immunohistochemical analysis of paraffin-embedded human fetal kidney tissue labeling IMP3 with ab179807 at 1/100 dilution.

Counter stained with hematoxylin.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IMP3 antibody [EPR12021-114] (ab179807)

Negative control: Immunohistochemical analysis of paraffin-embedded human adult kidney tissue labeling IMP3 with unpurified ab179807 at 1/100 dilution. Counter stained with hematoxylin.

Perform heat mediated antigen retrieval with EDTA buffer pH 9 before commencing with IHC staining protocol.

Why choose a recombinant antibody?

 <p>Research with confidence Consistent and reproducible results</p>	 <p>Long-term and scalable supply Recombinant technology</p>
 <p>Success from the first experiment Confirmed specificity</p>	 <p>Ethical standards compliant Animal-free production</p>

Anti-IMP3 antibody [EPR12021-114] (ab179807)

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

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