abcam

ab290736

Anti-IGF2BP1/IMP1 antibody [EPR26408-18]

Recombinant | RabMAb | Advanced Validation | 20ul selling size

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Preservative: 0.01% Sodium azide Constituents: PBS, 40% Glycerol (glycerin, glycerine), 0.05% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR26408-18
Purification technique	Affinity purification Protein A
Concentration	0.554 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

ICC/IF

Tested

Species	Mouse
Dilution info	1/50
Notes	-

Species	Human

Dilution info	1/50
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IP

Not recommended

Species	Mouse, Human, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Mouse
Dilution info	1/500
Notes	-

Species	Human
Dilution info	1/500
Notes	-

Expected

Species	Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

IHC-P

Tested

Species	Mouse
Dilution info	1/2000
Notes	-

Species	Rat
Dilution info	1/2000
Notes	-

Species	Human
Dilution info	1/2000
Notes	-

mIHC

Tested

Species	Human

Dilution info	1/500
Notes	-

Expected

Species	Mouse, Rat
Dilution info	Use at an assay dependent concentration.
Notes	-

Target data

See full target information IGF2BP1

Function

RNA-binding factor that recruits target transcripts to cytoplasmic protein-RNA complexes (mRNPs). This transcript 'caging' into mRNPs allows mRNA transport and transient storage. It also modulates the rate and location at which target transcripts encounter the translational apparatus and shields them from endonuclease attacks or microRNA-mediated degradation. Preferentially binds to N6-methyladenosine (m6A)-containing mRNAs and increases their stability (PubMed:29476152, PubMed:32245947). Plays a direct role in the transport and translation of transcripts required for axonal regeneration in adult sensory neurons (By similarity). Regulates localized beta-actin/ACTB mRNA translation, a crucial process for cell polarity, cell migration and neurite outgrowth. Co-transcriptionally associates with the ACTB mRNA in the nucleus. This binding involves a conserved 54-nucleotide element in the ACTB mRNA 3'-UTR, known as the 'zipcode'. The RNP thus formed is exported to the cytoplasm, binds to a motor protein and is transported along the cytoskeleton to the cell periphery. During transport, prevents ACTB mRNA from being translated into protein. When the RNP complex reaches its destination near the plasma membrane, IGF2BP1 is phosphorylated. This releases the mRNA, allowing ribosomal 40S and 60S subunits to assemble and initiate ACTB protein synthesis. Monomeric ACTB then assembles into the subcortical actin cytoskeleton (By similarity). During neuronal development, key regulator of neurite outgrowth, growth cone guidance and neuronal cell migration, presumably through the spatiotemporal fine tuning of protein synthesis, such as that of ACTB (By similarity). May regulate mRNA transport to activated synapses (By similarity). Binds to and stabilizes ABCB1/MDR-1 mRNA (By similarity). During interstinal wound repair, interacts with and stabilizes PTGS2 transcript. PTGS2 mRNA stabilization may be crucial for colonic mucosal wound healing (By similarity). Binds to the 3'-UTR of IGF2 mRNA by a mechanism of cooperative and sequential dimerization and regulates IGF2 mRNA subcellular localization and translation. Binds to MYC mRNA, in the coding region instability determinant (CRD) of the open reading frame (ORF), hence preventing MYC cleavage by endonucleases and possibly microRNA targeting to MYC-CRD (PubMed:29476152). Binding to MYC mRNA is enhanced by m6A-modification of the CRD (PubMed:29476152). Binds to the 3'-UTR of CD44 mRNA and stabilizes it, hence promotes cell adhesion and invadopodia formation in cancer cells. Binds to the oncofetal H19 transcript and to the neuron-specific TAU mRNA and regulates their localizations. Binds to and stabilizes BTRC/FBW1A mRNA. Binds to the

adenine-rich autoregulatory sequence (ARS) located in PABPC1 mRNA and represses its translation. PABPC1 mRNA-binding is stimulated by PABPC1 protein. Prevents BTRC/FBW1A mRNA degradation by disrupting microRNA-dependent interaction with AGO2. Promotes the directed movement of tumor-derived cells by fine-tuning intracellular signaling networks. Binds to MAPK4 3'-UTR and inhibits its translation. Interacts with PTEN transcript open reading frame (ORF) and prevents mRNA decay. This combined action on MAPK4 (down-regulation) and PTEN (up-regulation) antagonizes HSPB1 phosphorylation, consequently it prevents G-actin sequestration by phosphorylated HSPB1, allowing F-actin polymerization. Hence enhances the velocity of cell migration and stimulates directed cell migration by PTEN-modulated polarization. Interacts with Hepatitis C virus (HCV) 5'-UTR and 3'-UTR and specifically enhances translation at the HCV IRES, but not 5'-cap-dependent translation, possibly by recruiting eIF3. Interacts with HIV-1 GAG protein and blocks the formation of infectious HIV-1 particles. Reduces HIV-1 assembly by inhibiting viral RNA packaging, as well as assembly and processing of GAG protein on cellular membranes. During cellular stress, such as oxidative stress or heat shock, stabilizes target mRNAs that are recruited to stress granules, including CD44, IGF2, MAPK4, MYC, PTEN, RAPGEF2 and RPS6KA5 transcripts.

Storage

Shipped at conditions	Conditional Ambient
Appropriate short-term storage duration	1-2 weeks
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	-20°C
Aliquoting information	Upon delivery aliquot
Storage information	Avoid freeze / thaw cycle

Notes

Patented technology
Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?
This product is a recombinant monoclonal antibody, which offers several advantages including:

- High batch-to-batch consistency and reproducibility
- Improved sensitivity and specificity
- Long-term security of supply
- Animal-free batch production

For more information, read more on recombinant antibodies.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

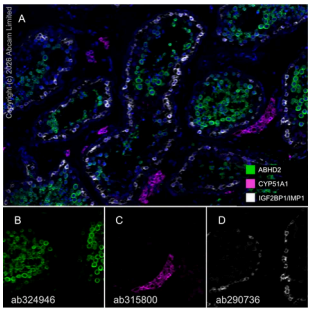
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

13 product images



Multiplex immunohistochemistry - Anti-IGF2BP1/IMP1 antibody [EPR26408-18] (ab290736)

IGF2BP1/IMP1 Multiplex immunohistochemistry staining of Human testis using rabbit Anti-IGF2BP1/IMP1 antibody

Multiplex immunohistochemistry analysis of formalin/PFA-fixed paraffin-embedded human testis tissue staining ABHD2 with ab324946 at a 1/2000 dilution, ab315800 anti-CYP51A1 used at 1/2000 dilution (0.26 µg/ml) and ab290736 anti-IGF2BP1/IMP1 used at 1/2000 dilution (0.284 µg/ml). Panel A: anti-ABHD2 (green; Opal™520), anti-CYP51A1 (magenta; Opal™690), anti-IGF2BP1/IMP1 (gray; Opal™570) on human testis.

Panel B: anti-ABHD2 staining spermatocytes in human testis.

Panel C: anti-CYP51A1 staining leydig cells in human testis.

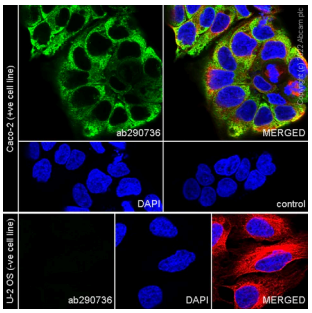
Panel D: anti-IGF2BP1/IMP1 staining spermatogonia in mouse colon.

Nuclear DNA was labeled with DAPI (shown in blue).

The section was incubated in three rounds of staining: in the order of ab324946, ab315800 and ab290736 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.

The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope.

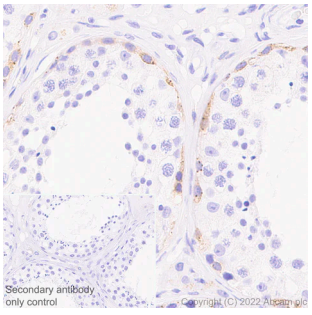
Heat mediated antigen retrieval was performed with Tris-EDTA buffer (pH 9.0, Epitope Retrieval Solution2) for 20 mins.



Immunocytochemistry/ Immunofluorescence - Anti-IGF2BP1/IMP1 antibody [EPR26408-18] (ab290736)

IGF2BP1/IMP1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-IGF2BP1/IMP1 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeilized Caco-2 (human colorectal adenocarcinoma epithelial cell) cells lebelling IGF2BP1/IMP1 with ab290736 at 1/50 (11.34 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 (2 ug/ml) dilution (Green). Confocal image showing cytoplasmic staining in Caco-2 cell line. Negative control: U-2 OS (PMID: 23069990). ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 (2.5 ug/ml) dilution (Red). The Nuclear counterstain was DAPI (Blue). Secondary antibody only control: Secondary antibody is ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 (2 ug/ml) dilution.

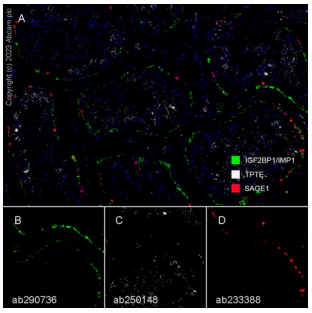


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IGF2BP1/IMP1 antibody [EPR26408-18] (ab290736)

IGF2BP1/IMP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-IGF2BP1/IMP1 antibody

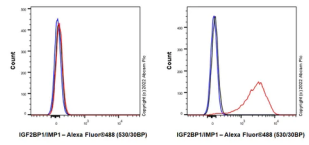
Immunohistochemical analysis of paraffin-embedded Human testis tissue labelling IGF2BP1/IMP1 with ab290736 at 1/2000 (0.284 ug/ml) followed by a ready to use LeicaDS9800 (BOND™ Polymer Refine Detection). Positive staining on human testis (PMID:28333300) . The section was incubated with ab290736 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (BOND™ Polymer Refine Detection).

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



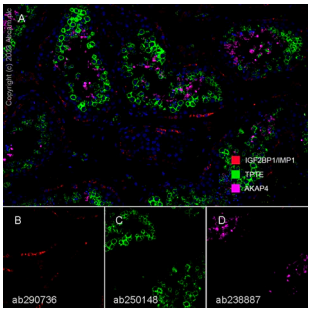
Multiplex immunohistochemistry - Anti-IGF2BP1/IMP1 antibody [EPR26408-18] (ab290736)

Fluorescence multiplex immunohistochemical analysis of formalin/PFA-fixed paraffin-embedded Human testis tissue. Panel A: Merged staining of anti-IGF2BP1/IMP1 (green; Opal™690), anti-TPTE (gray; Opal™520) and anti-SAGE1 (red; Opal™570) on human testis. Panel B: Anti-IGF2BP1/IMP1 stained on cytoplasm of spermatogonia. Panel C: Anti-TPTE stained on spermatocytes. Panel D: Anti-SAGE1 stained on nucleus of spermatogonia. The section was incubated in three rounds of staining: in the order of ab290736, ab250148, and ab233388 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system.The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins. Counterstained with DAPI.



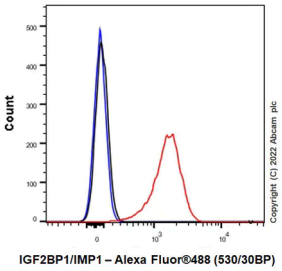
Flow Cytometry (Intracellular) - Anti-IGF2BP1/IMP1 antibody [EPR26408-18] (ab290736)

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized U-2 OS (human bone osteosarcoma epithelial cell, Left) / Caco-2 (human colorectal adenocarcinoma epithelial cell, Right) cells labelling IGF2BP1/IMP1 with ab290736 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody. Negative control: U-2 OS (PMID: 26917013)



Multiplex immunohistochemistry - Anti-IGF2BP1/IMP1 antibody [EPR26408-18] (ab290736)

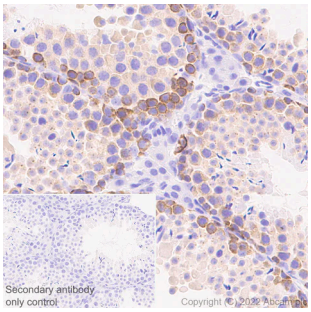
Fluorescence multiplex immunohistochemical analysis of formalin/PFA-fixed paraffin-embedded Human testis tissue. Panel A: Merged staining of anti-AKAP4 (magenta; Opal™690), anti-TPTE (green; Opal™520) and anti-IGF2BP1/IMP1 (red; Opal™570) on human testis. Panel B: Anti-IGF2BP1/IMP1 stained on spermatogonia. Panel C: Anti-TPTE stained on spermatocytes. Panel D: Anti-AKAP4 stained on spermatids. The section was incubated in three rounds of staining: in the order of ab238887, ab250148, and ab290736 for 30 mins at room temperature. Each round was followed by a separate fluorescent tyramide signal amplification system. The immunostaining was performed on a Leica Biosystems BOND® RX instrument with an Opal™ 4-color kit. Image acquisition was performed with Leica SP8 confocal microscope. Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution 2) for 20 mins. Counterstained with DAPI.



Flow Cytometry (Intracellular) - Anti-IGF2BP1/IMP1 antibody [EPR26408-18] (ab290736)

IGF2BP1/IMP1 Flow Cytometry (Intracellular) staining using rabbit Anti-IGF2BP1/IMP1 antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized NIH/3T3 (Mouse embryonic fibroblast) cells labelling IGF2BP1/IMP1 with ab290736 at 1/500 dilution (0.1ug) (Red) compared with a Rabbit monoclonal IgG (ab172730) (Black) isotype control and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (Blue). A Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody.

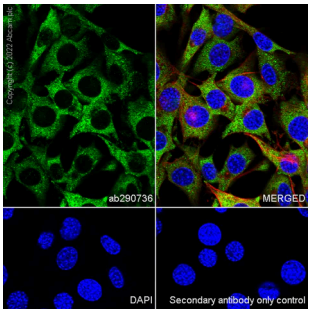


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IGF2BP1/IMP1 antibody [EPR26408-18] (ab290736)

IGF2BP1/IMP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-IGF2BP1/IMP1 antibody

Immunohistochemical analysis of paraffin-embedded Mouse testis tissue labelling IGF2BP1/IMP1 with ab290736 at 1/2000 (0.284 ug/ml) followed by a ready to use LeicaDS9800 (BOND™ Polymer Refine Detection). Positive staining on mouse testis. The section was incubated with ab290736 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (BOND™ Polymer Refine Detection).

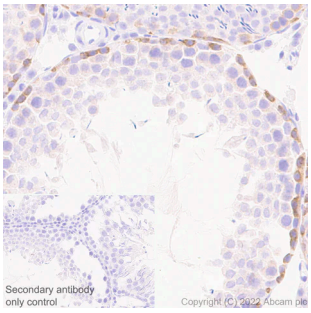
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



Immunocytochemistry/ Immunofluorescence - Anti-IGF2BP1/IMP1 antibody [EPR26408-18] (ab290736)

IGF2BP1/IMP1 Immunocytochemistry/ Immunofluorescence staining using rabbit Anti-IGF2BP1/IMP1 antibody

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeilized NIH/3T3 (mouse embryonic fibroblast) cells lebelling IGF2BP1/IMP1 with ab290736 at 1/50 (11.34 ug/ml) dilution, followed by ab150081 Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed antibody at 1/1000 (2 ug/ml) dilution (Green). Confocal image showing cytoplasmic staining in NIH/3T3 cell line is observed. ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 (2.5 ug/ml) dilution (Red). The Nuclear counterstain was DAPI (Blue).
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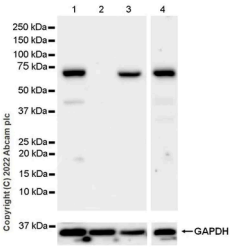


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-IGF2BP1/IMP1 antibody [EPR26408-18] (ab290736)

IGF2BP1/IMP1 Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-IGF2BP1/IMP1 antibody

Immunohistochemical analysis of paraffin-embedded Rat testis tissue labelling IGF2BP1/IMP1 with ab290736 at 1/2000 (0.284 ug/ml) followed by a ready to use LeicaDS9800 (BOND™ Polymer Refine Detection). Positive staining on rat testis. The section was incubated with ab290736 for 30 mins at room temperature.The immunostaining was performed on a Leica Biosystems BOND® RX instrument Counterstained with Hematoxylin.
Secondary antibody only control: Secondary antibody is a ready to use LeicaDS9800 (BOND™ Polymer Refine Detection) was used.

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0, epitope retrieval solution2) for 20 mins



Western blot - Anti-IGF2BP1/IMP1 antibody [EPR26408-18] (ab290736)

Blocking / Diluent buffer and concentration: 5% NFDM/TBST
Exposure time:

Lane 1-3: 10 seconds
Lane 4: 26 seconds

Negative control: U-2 OS (PMID: 26917013)

All lanes:
Western blot - Anti-IGF2BP1/IMP1 antibody [EPR26408-18] (ab290736) at 1/1000 dilution

Lane 1:
Caco-2 (human colorectal adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Lane 2:
U-2 OS (human bone osteosarcoma epithelial cell) whole cell lysate at 20 µg

Lane 3:
293T (human embryonic kidney epithelial cell) whole cell lysate at 20 µg

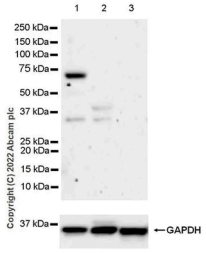
Lane 4:
NIH/3T3 (mouse embryonic fibroblast) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 63 kDa

Observed band size: 65 kDa



Western blot - Anti-IGF2BP1/IMP1 antibody [EPR26408-18] (ab290736)

Blocking / Dilution buffer and concentration: 5% NFDM/TBST
The expression profile observed is consistent with that described in the literature (PMID: 26917013).
Negative control: mouse liver, mouse kidney (PMID: 26917013).
Two unidentified bands around 37 kDa were observed.

All lanes:
Western blot - Anti-IGF2BP1/IMP1 antibody [EPR26408-18] (ab290736) at 1/1000 dilution

Lane 1:
Mouse testis tissue lysate at 20 µg

Lane 2:
Mouse liver tissue lysate at 20 µg

Lane 3:
Mouse kidney tissue lysate at 20 µg

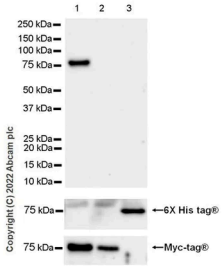
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 63 kDa

Observed band size: 65 kDa

Exposure time: 3min



Western blot - Anti-IGF2BP1/IMP1 antibody [EPR26408-18] (ab290736)

Blocking / Diluting buffer and concentration: 5% NFDM/TBST
All lanes:
Western blot - Anti-IGF2BP1/IMP1 antibody [EPR26408-18] (ab290736) at 1/1000 dilution

Lane 1:
MYC/DDK-tagged mouse IGF2BP1 full-length recombinant protein 10 ng

Lane 2:
MYC/DDK- tagged mouse IGF2BP2 full-length recombinant protein 10 ng

Lane 3:
His-tagged mouse IGF2BP3 full-length recombinant protein 10 ng

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Predicted band size: 63 kDa

Exposure time: 48s

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.