abcam

ab253192

Anti-Sigma1-receptor antibody [EPR23266-69]

Recombinant | RabMAb | KO Validated | 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	EPR23266-69
Purification technique	Affinity purification Protein A
Concentration	0.599 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IHC-P

Tested

Species	Rat
Dilution info	1/500
Notes	-

Species	Human

Dilution info	1/500
Notes	-

Not recommended

Species	Mouse, Transfected cell lysate
Dilution info	-
Notes	-

IP

Not recommended

Species	Mouse, Human, Rat, Transfected cell lysate
Dilution info	-
Notes	-

WB

Tested

Species	Transfected cell lysate
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

Species	Human
Dilution info	1/1000
Notes	-

Not recommended

Species	Mouse
Dilution info	-

Notes	-

ICC/IF

Not recommended

Species	Human, Mouse, Rat, Transfected cell lysate
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/600
Notes	-

Expected

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

Not recommended

Species	Mouse, Transfected cell lysate
Dilution info	-
Notes	-

Target data

See full target information SIGMAR1

Function	Functions in lipid transport from the endoplasmic reticulum and is involved in a wide array of cellular functions probably through regulation of the biogenesis of lipid microdomains at the plasma membrane. Involved in the regulation of different receptors it plays a role in BDNF signaling and EGF signaling. Also

regulates ion channels like the potassium channel and could modulate neurotransmitter release. Plays a role in calcium signaling through modulation together with ANK2 of the ITP3R-dependent calcium efflux at the endoplasmic reticulum. Plays a role in several other cell functions including proliferation, survival and death. Originally identified for its ability to bind various psychoactive drugs it is involved in learning processes, memory and mood alteration (PubMed:16472803, PubMed:9341151). Necessary for proper mitochondrial axonal transport in motor neurons, in particular the retrograde movement of mitochondria. Plays a role in protecting cells against oxidative stress-induced cell death via its interaction with RNF112 (By similarity).

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

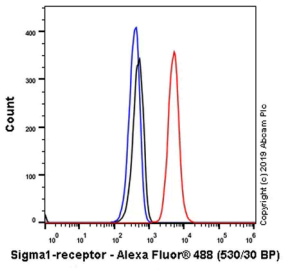
We do not recommend this combination. It is not covered by our product promise.

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.

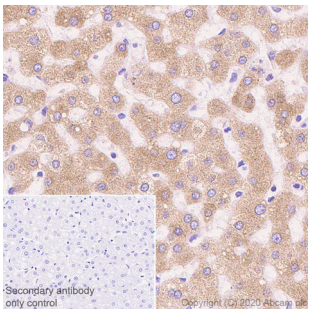
10 product images



Flow Cytometry (Intracellular) - Anti-Sigma1-receptor antibody [EPR23266-69] (ab253192)

Sigma1-receptor Flow Cytometry (Intracellular) staining using rabbit Anti-Sigma1-receptor antibody

Intracellular flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized HT-29 (Human colorectal adenocarcinoma epithelial cell) cells labelling Sigma1-receptor with ab253192 at 1/600 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, ab150077) at 1/2000 dilution was used as the secondary antibody.

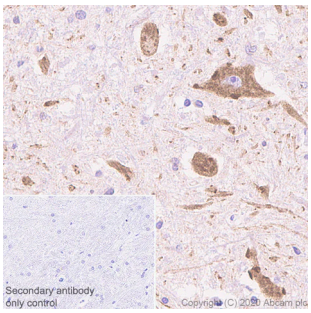


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Sigma1-receptor antibody [EPR23266-69] (ab253192)

Sigma1-receptor Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Sigma1-receptor antibody

Immunohistochemical analysis of paraffin-embedded Human liver tissue labeling Sigma1-receptor with ab253192 at 1/500 dilution (1.23 ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on human liver (PMID: 8954936). The section was incubated with ab253192 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 Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins

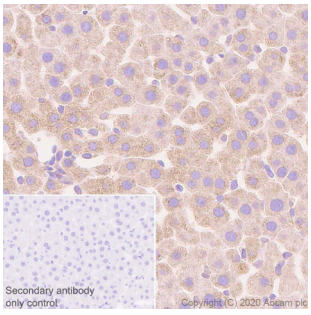


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Sigma1-receptor antibody [EPR23266-69] (ab253192)

Sigma1-receptor Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Sigma1-receptor antibody

Immunohistochemical analysis of paraffin-embedded Human spinal cord tissue labeling Sigma1-receptor with ab253192 at 1/500 dilution (1.23 ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on human spinal cord (PMID: 23314020). The section was incubated with ab253192 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 Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins

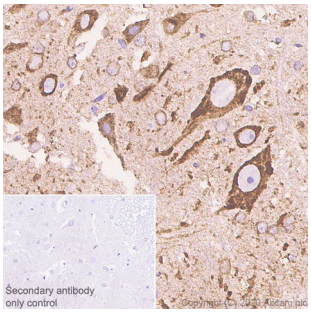


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Sigma1-receptor antibody [EPR23266-69] (ab253192)

Sigma1-receptor Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Sigma1-receptor antibody

Immunohistochemical analysis of paraffin-embedded Rat liver tissue labeling Sigma1-receptor with ab253192 at 1/500 dilution (1.23 ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on rat liver (PMID: 8954936). The section was incubated with ab253192 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 Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins

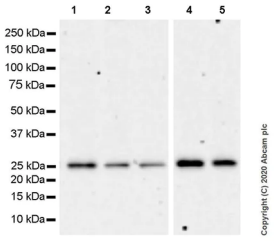


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Sigma1-receptor antibody [EPR23266-69] (ab253192)

Sigma1-receptor Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) staining using rabbit Anti-Sigma1-receptor antibody

Immunohistochemical analysis of paraffin-embedded Rat spinal cord tissue labeling Sigma1-receptor with ab253192 at 1/500 dilution (1.23 ug/ml) followed by a ready to use Rabbit specific IHC polymer detection kit HRP/DAB (ab209101). Positive staining on rat spinal cord (PMID: 23314020). The section was incubated with ab253192 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 Rabbit specific IHC polymer detection kit HRP/DAB (ab209101).

Heat mediated antigen retrieval with Citrate buffer (pH 6.0, epitope retrieval solution 1) for 20 mins



Western blot - Anti-Sigma1-receptor antibody [EPR23266-69] (ab253192)

Blocking and diluting buffer and concentration: 5% NFDM/TBST
Exposure time: 3 minutes

All lanes:
Western blot - Anti-Sigma1-receptor antibody [EPR23266-69] (ab253192) at 1/1000 dilution

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

Lane 2:
A375 (human malignant melanoma epithelial cell), whole cell lysate at 20 µg

Lane 3:
U-87 MG (human glioblastoma-astrocytoma epithelial cell), whole cell lysate at 20 µg

Lane 4:
HeLa (human cervix adenocarcinoma epithelial cell), whole cell lysate at 20 µg

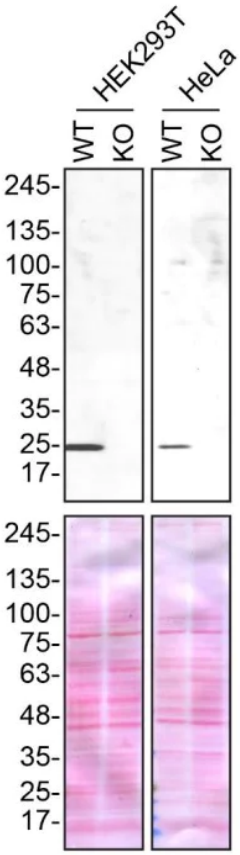
Lane 5:
293T (human embryonic kidney epithelial cell), whole cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

Predicted band size: 25 kDa

Observed band size: 25 kDa



Western blot - Anti-Sigma1-receptor antibody [EPR23266-69] (ab253192)

Sigma1-receptor Western blot staining using rabbit Anti-Sigma1-receptor antibody

ab253192 was shown to react with SIGMAR1 in wild-type HEK293T in Western blot with loss of signal observed in SIGMAR1 knockout cell line ab266619 (SIGMAR1 knockout cell lysate ab258666). Wild-type HEK293T and HeLa cell lysates and the corresponding SIGMAR1 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 5% milk in TBST for 1 hr before incubation with ab253192 overnight at 4 °C at a 1/5000 dilution. Blots were incubated with goat anti-rabbit HRP secondary antibodies at 0.2µg/mL before imaging.
These data were provided by YCharOS Inc., an open science company with the mission of characterizing commercially available antibody reagents for all human proteins. Abcam and YCharOS are working together to help address the reproducibility crisis by enabling the life science community to better evaluate commercially available antibodies.

All lanes:
Western blot - Anti-Sigma1-receptor antibody [EPR23266-69] (ab253192) at 1/5000 dilution

Lane 1:
Wild-type HEK-293T cell lysate at 20 µg

Lane 2:
Western blot - Human SIGMAR1 (Sigma1-receptor) knockout HEK-293T cell lysate (ab258666) at 20 µg

Lane 2:
Western blot - Human SIGMAR1 (Sigma1-receptor) knockout HEK-293T cell line (ab266619)

Lane 3:
Wild-type HeLa cell lysate at 20 µg

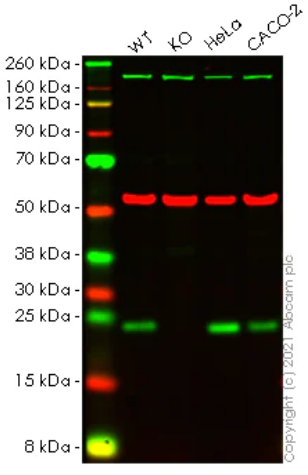
Lane 4:
SIGMAR1 knockout HeLa cell lysate at 20 µg

Secondary

All lanes:
goat anti-rabbit HRP at 0.2 µg/mL

Performed under reducing conditions.

Predicted band size: 25 kDa



Western blot - Anti-Sigma1-receptor antibody [EPR23266-69] (ab253192)

Sigma1-receptor Western blot staining using rabbit Anti-Sigma1-receptor antibody

Lanes 1 - 4: Merged signal (red and green). Green - ab253192 observed at 24 kDa. Red - loading control ab7291 (Mouse anti-Alpha Tubulin [DM1A]) observed at 55 kDa.
ab253192 was shown to react with Sigma1-receptor in wild-type HEK-293T cells in Western blot with loss of signal observed in SIGMAR1 knockout cell line ab266619 (SIGMAR1 knockout cell lysate ab258666). Wild-type HEK-293T and SIGMAR1 knockout cell lysates were subjected to SDS-PAGE. Membranes were blocked in 3 % milk in TBS-T (0.1 % Tween®) before incubation with ab253192 and ab7291 (Mouse anti-Alpha Tubulin [DM1A]) overnight at 4 °C at a 1 in 1000 dilution and a 1 in 20000 dilution respectively. Blots were incubated 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 in 20000 dilution for 1 h at room temperature before imaging.
All lanes:
Western blot - Anti-Sigma1-receptor antibody [EPR23266-69] (ab253192) at 1/1000 dilution

Lane 1:
Wild-type HEK-293T cell lysate at 20 µg

Lane 2:
Western blot - Human SIGMAR1 (Sigma1-receptor) knockout HEK-293T cell lysate (ab258666) at 20 µg

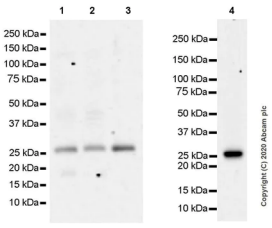
Lane 3:
HeLa cell lysate at 20 µg

Lane 4:
Caco-2 cell lysate at 20 µg

Performed under reducing conditions.

Predicted band size: 25 kDa

Observed band size: 24 kDa, 55 kDa



Western blot - Anti-Sigma1-receptor antibody [EPR23266-69] (ab253192)

Blocking and diluting buffer and concentration: 5% NFDM/TBST
Exposure time: 3 minutes

All lanes:
Western blot - Anti-Sigma1-receptor antibody [EPR23266-69] (ab253192) at 1/1000 dilution

Lane 1:
Rat brain tissue lysate at 20 µg

Lane 2:
Rat hippocampus tissue lysate at 20 µg

Lane 3:
Rat lung tissue lysate at 20 µg

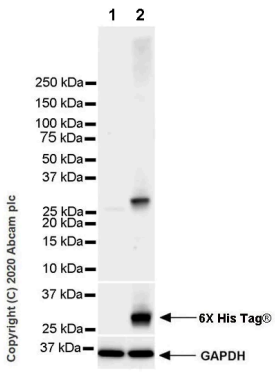
Lane 4:
Rat kidney tissue lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

Predicted band size: 25 kDa

Observed band size: 25 kDa



Western blot - Anti-Sigma1-receptor antibody [EPR23266-69] (ab253192)

Blocking and diluting buffer and concentration: 5% NFDM/TBST
Exposure time: 3.25 seconds

All lanes:
Western blot - Anti-Sigma1-receptor antibody [EPR23266-69] (ab253192) at 1/1000 dilution

Lane 1:
HEK-293T (human embryonic kidney) transfected with an empty vector (vector control), containing a myc-His-tag®, whole cell lysate at 20 µg

Lane 2:
HEK-293T transfected with Sigma1-receptor (WT) expression vector containing a myc-His-tag®, whole cell lysate at 20 µg

Secondary

All lanes:
Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000 dilution

Predicted band size: 25 kDa

Observed band size: 25 kDa

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