abcam

ab315388

Anti-OSMR antibody [EPR28222-64]

Recombinant | RabMAb | 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	EPR28222-64
Purification technique	Affinity purification Protein A
Concentration	0.478 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	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	1/1000
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Mouse
Dilution info	1/50
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Mouse, Human, Rat
Dilution info	-
Notes	-

Target data

See full target information Osmr

Function	Associates with IL31RA to form the IL31 receptor (PubMed:9920829). Binds IL31 to activate STAT3 and possibly STAT1 and STAT5 (By similarity). Capable of transducing OSM-specific signaling events (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.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	The Oncostatin M receptor commonly known as OSMR is an important membrane-bound receptor involved in numerous cellular processes. It is part of the type I cytokine receptor family and often forms heterodimers with gp130 to mediate its functions. OSMR has a mass of approximately 115 kDa and predominantly expresses in tissues such as skin lung liver and the nervous system. Alternative names for OSMR include Oncostatin-M-specific receptor beta subunit and IL-31 receptor beta.
Biological function summary	OSMR plays a significant role in regulating inflammatory responses and cell growth. It is part of a receptor complex that upon activation triggers intracellular signaling cascades driven by cytokines like Oncostatin M and IL-31. OSMR involvement influences processes including acute phase responses hematopoiesis and nerve cell differentiation. Its action helps mediate the communication between cells to respond to external inflammatory signals effectively.
Pathways	OSMR is actively involved in the JAK/STAT signaling pathway and the MAPK pathway. In JAK/STAT OSMR collaborates with related proteins like gp130 and participates in promoting transcriptional activity of specific genes in response to cytokine signaling. OSMR's engagement in the MAPK pathway influences cellular responses such as proliferation differentiation and apoptosis linking it with proteins such as MAP Kinases that further proceed this signaling cascade.
Associated diseases and disorders	OSMR shows a connection with atopic dermatitis and various cancers. Aberrant OSMR signaling can lead to excessive inflammatory responses contributing to skin conditions like atopic dermatitis often involving IL-31 in the pathway. In cancer elevated OSMR expression correlates with tumorigenesis and progression establishing its interaction with oncogenic proteins in the STAT3 pathway which may promote malignant cell behavior. Through these disease interactions OSMR represents a potential therapeutic target worth exploring.

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.

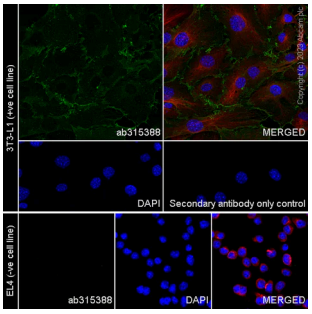
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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.

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5 product images



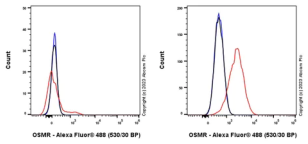
Immunocytochemistry/ Immunofluorescence - Anti-OSMR antibody [EPR28222-64] (ab315388)

Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized 3T3-L1 (mouse embryonic fibroblast) cells labelling OSMR with ab315388 at 1/50 (9.56 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 mainly membranous staining in 3T3-L1 cell line.
Negative control: EL4 (PMID: 9920829)
Image was taken with a confocal microscope(Leica-Microsystems, TCS SP8).

ab195889 Anti-alpha Tubulin mouse monoclonal antibody - Microtubule Marker (Alexa Fluor® 594) was used to counterstain tubulin at 1/200 2.5ug/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.

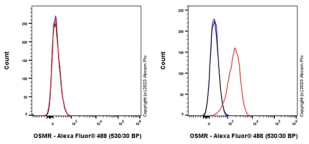


Flow Cytometry - Anti-OSMR antibody [EPR28222-64] (ab315388)

Flow cytometric analysis of M1 (mouse myeloid leukemia myeloblast, Left) / 3T3-L1 (mouse embryonic fibroblast, Right) cells labelling OSMR with ab315388 at 1/50 dilution (1 ug)/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).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Negative control: M1. Gated on viable cells.

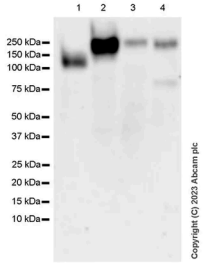


Flow Cytometry - Anti-OSMR antibody [EPR28222-64] (ab315388)

Flow cytometric analysis of EL4 (mouse lymphoma T lymphocyte, Left) / NIH/3T3 (mouse embryonic fibroblast, Right) cells labelling OSMR with ab315388 at 1/50 dilution (1 ug)/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).

Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/5000 dilution was used as the secondary antibody.

Negative control: EL4. Gated on viable cells.



Western blot - Anti-OSMR antibody [EPR28222-64] (ab315388)

OSMR Western blot staining using rabbit Anti-OSMR antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

OMSR is a glycoprotein of approximately 200-250 kDa and detected as a 111kDa band after treated with Protein Deglycosylation MIX II.

All lanes:
Western blot - Anti-OSMR antibody [EPR28222-64] (ab315388) at 1/1000 dilution

Lane 1:
NIH/3T3 (mouse embryonic fibroblast) whole cell lysate treated with Protein Deglycosylation Mix II at 15 µg

Lane 2:
Untreated NIH/3T3 whole cell lysate at 15 µg

Lane 3:
Mouse colon tissue lysate at 20 µg

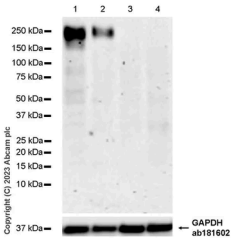
Lane 4:
Mouse skin tissue lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 200-250 kDa

Exposure time: 70s



Western blot - Anti-OSMR antibody [EPR28222-64] (ab315388)

OSMR Western blot staining using rabbit Anti-OSMR antibody

Blocking and diluting buffer and concentration: 5% NFDM/TBST.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.

All lanes:
Western blot - Anti-OSMR antibody [EPR28222-64] (ab315388) at 1/1000 dilution

Lane 1:
NIH/3T3 (mouse embryonic fibroblast) whole cell lysate at 20 µg

Lane 2:
3T3-L1 (mouse embryonic fibroblast) whole cell lysate at 20 µg

Lane 3:
EL4 (mouse lymphoma T lymphocyte) whole cell lysate at 20 µg

Lane 4:
M1 (mouse myeloid leukemia myeloblast) whole cell lysate at 20 µg

Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Observed band size: 200-250 kDa, 36 kDa

Exposure time: 180s

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