abcam

ab316927

Anti-OB Cadherin antibody [EPR26151-47]

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	EPR26151-47
Purification technique	Affinity purification Protein A
Concentration	0.463 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Transfected cell lysate - Human
Dilution info	1/1000
Notes	-

Species	Human

Dilution info	1/1000
Notes	-

Species	Mouse
Dilution info	1/1000
Notes	-

Species	Rat
Dilution info	1/1000
Notes	-

IP

Tested

Species	Human
Dilution info	1/30
Notes	-

Expected

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

Not recommended

Species	Transfected cell lysate - Human
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	1/5000

Notes	-

Expected

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

Not recommended

Species	Transfected cell lysate - Human
Dilution info	-
Notes	-

ICC/IF

Not recommended

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

IHC-P

Not recommended

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

Target data

See full target information CDH11

Function	Cadherins are calcium-dependent cell adhesion proteins. They preferentially interact with themselves in a homophilic manner in connecting cells; cadherins may thus contribute to the sorting of heterogeneous cell types. Required for proper focal adhesion assembly (PubMed:33811546). Involved in the regulation of cell migration (PubMed:33811546).

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	OB Cadherin is a calcium-dependent cell adhesion molecule also known as Cadherin-11. It has a mass of about 120 kDa. OB Cadherin is expressed widely in mesenchymal tissues including osteoblasts fibroblasts and synovial tissues. This cadherin plays a role in the regulation of cell-cell adhesion influencing the mechanical structure and integrity of tissues. Its expression in differentiated cells

	indicates its involvement in tissue maintenance and repair. OB Cadherin is also contributing to the segregation of different cell types during developmental processes.
Biological function summary	OB Cadherin plays an important role in tissue morphogenesis and remodeling. It is a part of the adherens junction complex which also includes catenins. This complex mediates cell contact and communication essential for structural integrity and signaling. OB Cadherin supports the proper organization and separation of cells within tissues impacting processes like bone development and wound healing. It acts as a mediator in mechanical signaling influencing cellular responses to mechanical stress.
Pathways	OB Cadherin participates in signaling pathways involved in cell adhesion and migration notably in the Wnt and BMP pathways. These pathways are essential for developmental processes and maintain tissue homeostasis. OB Cadherin interacts closely with proteins like beta-catenin playing a role in transcriptional regulation that influences cell fate decisions. Its function in these pathways demonstrates its critical role in regulating cellular activities tied to growth and differentiation.
Associated diseases and disorders	OB Cadherin is linked to conditions like rheumatoid arthritis and cancer metastasis. In rheumatoid arthritis overexpression of OB Cadherin in synovial tissues can contribute to joint inflammation and tissue destruction associated with interactions with fibroblast-like synoviocytes. In cancer metastasis OB Cadherin's role in cell adhesion and migration highlights its potential influence in the spread of cancer cells often in relation to altered interactions with proteins like N-cadherin. These associations make OB Cadherin an important target for research into disease mechanisms and therapies.

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

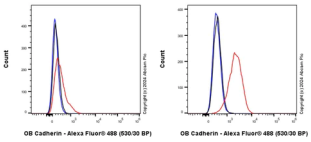
We do not recommend this combination. It is not covered by our product promise.

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.

5 product images

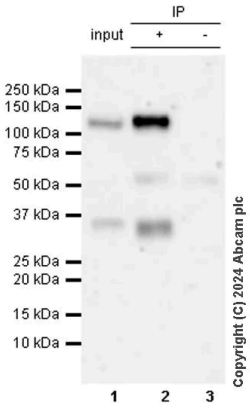


Flow Cytometry (Intracellular) - Anti-OB Cadherin antibody [EPR26151-47] (ab316927)

Flow cytometric analysis of 4% paraformaldehyde fixed 90% methanol permeabilized MCF7(human breast adenocarcinoma epithelial cell, Left)/PC-3(human prostate adenocarcinoma epithelial cell, Right) cells labelling OB Cadherin with ab316927 at 1/5000 dilution (0.01 ug)/Red (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: MCF7



Immunoprecipitation - Anti-OB Cadherin antibody [EPR26151-47] (ab316927)

OB Cadherin was immunoprecipitated from 0.35 mg PC-3 (human prostate adenocarcinoma epithelial cell) whole cell lysate with ab316927 at 1/30 dilution (2ug in 0.35mg lysates). Western blot was performed on the immunoprecipitate using ab316927 at 1/1000 dilution. VeriBlot for IP secondary antibody(HRP)(ab131366) was used at 1/5000 dilution.

Lane 1: PC-3 (human prostate adenocarcinoma epithelial cell) whole cell lysate
Lane 2: ab316927 IP in PC-3 (human prostate adenocarcinoma epithelial cell) whole cell lysate
Lane 3: Rabbit monoclonal IgG (ab172730) instead of ab316927 in PC-3 whole cell lysate

Lysate was freshly made and used for Western blotting immediately to minimize protein degradation. The band at ~33KDa may represent a c-terminal cleavage product (PMID: 37558205, 25975695).

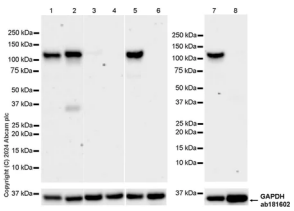
All lanes:
Immunoprecipitation - Anti-OB Cadherin antibody [EPR26151-47] (ab316927) at 1/30 dilution

All lanes:
PC-3 (human prostate adenocarcinoma epithelial cell) whole cell lysate

Secondary

All lanes:
Immunoprecipitation - VeriBlot for IP Detection Reagent (HRP) (ab131366) at 1/5000 dilution

Exposure time: 93s



Western blot - Anti-OB Cadherin antibody [EPR26151-47] (ab316927)

OB Cadherin Western blot staining using rabbit Anti-OB Cadherin antibody

Low expression: skeletal mucle, liver.

The band at ~33KDa may represent a c-terminal cleavage product (PMID: 37558205, 25975695)

Lanes 5-8 use Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated (ab97051) at 1/100000. Lanes 1-4 use Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity to human IgG at 1/2000.

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

All lanes:
Western blot - Anti-OB Cadherin antibody [EPR26151-47] (ab316927) at 1/1000 dilution

Lane 1:
Human prostate tissue lysate at 20 µg

Lane 2:
Human brain tissue lysate at 20 µg

Lane 3:
Human skeletal muscle tissue lysate at 20 µg

Lane 4:
Human liver tissue lysate at 20 µg

Lane 5:
Mouse brain tissue lysate at 20 µg

Lane 6:
Mouse skeletal muscle tissue lysate at 20 µg

Lane 7:
Rat brain tissue lysate at 20 µg

Lane 8:
Rat skeletal muscle tissue lysate at 20 µg

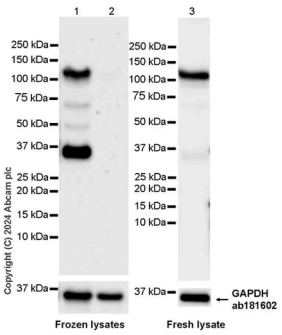
Secondary

Lanes 1 - 4:
Goat Anti-Rabbit IgG (HRP) with minimal cross-reactivity with human IgG at 1/2000 dilution

Lanes 5 - 8:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/100000 dilution

Observed band size: 120 kDa, 36 kDa

Exposure time: 70s



Western blot - Anti-OB Cadherin antibody [EPR26151-47] (ab316927)

OB Cadherin Western blot staining using rabbit Anti-OB Cadherin antibody

Negative control: MCF7.

In lanes 1-2, the lysates were stored at -80°C prior to Western Blotting. The band at ~33KDa may represent a c-terminal cleavage product (PMID: 37558205, 25975695). In lane 3, the lysate was freshly made and used for Western Blotting immediately to minimize protein degradation.

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

All lanes:
Western blot - Anti-OB Cadherin antibody [EPR26151-47] (ab316927) at 1/1000 dilution

Lanes 1 and 3:
PC-3 (human prostate adenocarcinoma epithelial cell) whole cell lysate at 20 µg

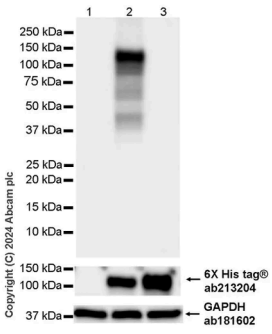
Lane 2:
MCF7 (human breast adenocarcinoma epithelial cell) whole cell lysate at 20 µg

Secondary

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

Observed band size: 120 kDa, 36 kDa

Exposure time: 180s



Western blot - Anti-OB Cadherin antibody [EPR26151-47] (ab316927)

OB Cadherin Western blot staining using rabbit Anti-OB Cadherin antibody

This antibody does not cross-react with human CDH8.

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

In Western blot, Anti-6X His tag® antibody [EPR20547] - ChIP Grade (ab213204) staining at 1/5000 dilution.

All lanes:
Western blot - Anti-OB Cadherin antibody [EPR26151-47] (ab316927) at 1/1000 dilution

Lane 1:
293T cells transfected with an empty vector containing a myc-His-tag®, whole cell lysate at 20 µg

Lane 2:
293T cells transfected with a human CDH11 expression vector containing a myc-His-tag®, whole cell lysate at 20 µg

Lane 3:
293T cells transfected with a human CDH8 expression vector containing a myc-His-tag®, whole cell lysate at 20 µg

Secondary

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

Observed band size: 120 kDa, 36 kDa

Exposure time: 10s

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