abcam

ab290745

Anti-CD24 antibody [EPR26528-17] (BSA and Azide free)

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR26528-17
Purification technique	Affinity purification Protein A
Concentration	1.003 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Mouse, Rat, Human
Dilution info	-

Notes	-

Flow Cyt

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Rat, Human
Dilution info	-
Notes	-

ICC/IF

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Rat, Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Rat, Mouse, Human
Dilution info	-
Notes	-

IHC-Fr

Not recommended

Species	Mouse, Rat, Human
Dilution info	-
Notes	-

WB

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Rat, Human
Dilution info	-
Notes	-

Target data

See full target information Cd24

Function May have a pivotal role in cell differentiation of different cell types. May have a specific role in early thymocyte development. Signaling could be triggered by the binding of a lectin-like ligand to the CD24 carbohydrates, and transduced by the release of second messengers derived from the GPI-anchor. Modulates B-cell activation responses (By similarity). In association with SIGLEC10 may be involved in the selective suppression of the immune response to danger-associated molecular patterns (DAMPs) such as HMGB1, HSP70 and HSP90 (PubMed:19264983). Plays a role in the control of autoimmunity (PubMed:20200274).

Storage

Shipped at conditions Blue Ice

Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

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.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Conjugation ready
Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Supplementary info

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

Activity summary	CD24 also known as heat-stable antigen or CD24A is a glycosylphosphatidylinositol (GPI)-anchored membrane protein with a molecular mass of approximately 30-50 kDa. It is expressed on the surface of many cell types including B cells T cells neutrophils and epithelial cells. CD24 plays a role in cell adhesion and signaling processes impacting immune response and cancer progression. Its expression is often used as a marker in identification and classification procedures such as flow cytometry.
Biological function summary	CD24 functions like a molecular "switch" modulating signals sent between cells. It acts as a ligand for multiple receptors and participates in cellular communication especially influencing the immune system. Part of its biological role involves interaction within cellular complexes impacting immune modulation and

	inflammatory responses. CD24's location at the interface of cellular microenvironments makes it critical for cellular response adaptation to varied external stimuli.
Pathways	CD24 participates in both immune signaling and cancer-related pathways. It plays a significant role in the suppression of the immune response often interacting with proteins like Siglec-10 in these pathways. CD24's involvement in these pathways contributes to cell survival and proliferation particularly within cancer development. The protein’s interaction within specified signaling pathways allows it to influence downstream targets that regulate gene expression and cellular functions.
Associated diseases and disorders	CD24 has significant connections to cancer and inflammatory diseases. It is highly expressed in various cancers including breast and prostate cancer where it correlates with poor prognosis due to its role in apoptosis evasion and metastasis. CD24 interacts with proteins like HMGB1 and is implicated in inflammatory conditions where it modulates immune cell activity. Extensive research into CD24's involvement in these disorders may lead to targeted therapies including the development of anti-CD24 antibodies for therapeutic interventions.

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

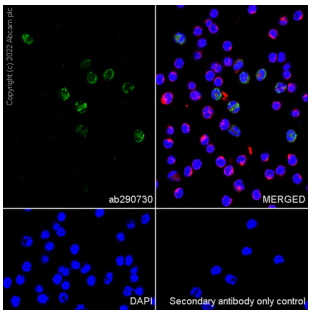
We do not recommend this combination. It is not covered by our product promise.

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.

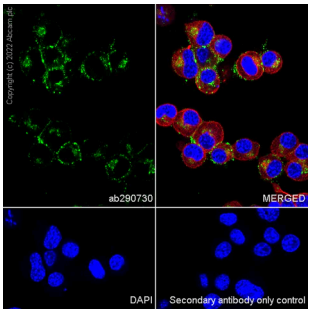
6 product images



Immunocytochemistry/ Immunofluorescence - Anti-CD24 antibody [EPR26528-17] (BSA and Azide free) (ab290745)

CD24 Immunocytochemistry/ Immunofluorescence staining of Mouse PBMC (mouse primary peripheral blood mononuclear cell) using rabbit Anti-CD24 antibody

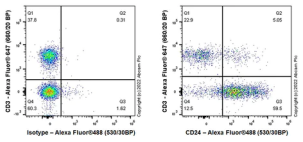
This data was developed using ab290730, the same antibody clone in a different buffer formulation.Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized Mouse PBMC (mouse primary peripheral blood mononuclear cell) cells labelling CD24 with ab290730 at 1/50 (8.56 ug/ml) 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 cytoplasmic staining in subsets of mouse PBMCs 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). 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.



Immunocytochemistry/ Immunofluorescence - Anti-CD24 antibody [EPR26528-17] (BSA and Azide free) (ab290745)

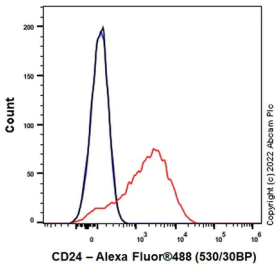
CD24 Immunocytochemistry/ Immunofluorescence staining of Neuro-2a (mouse neuroblastoma neuroblast) using rabbit Anti-CD24 antibody

This data was developed using ab290730, the same antibody clone in a different buffer formulation.Immunofluorescent analysis of 4% Paraformaldehyde-fixed, 0.1% TritonX-100 permeabilized Neuro-2a (mouse neuroblastoma neuroblast) cells labelling CD24 with ab290730 at 1/50 (8.56 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 cytoplasmic and membranous staining in the Neuro-2a 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). 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.



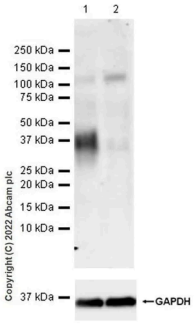
Flow Cytometry (Intracellular) - Anti-CD24 antibody [EPR26528-17] (BSA and Azide free) (ab290745)

Flow cytometric analysis of Mouse PBMCs (mouse primary peripheral blood mononuclear cells) cells labelling CD24 with ab290730 at 1/50 dilution (1ug)/ Right compared with a Rabbit monoclonal IgG (ab172730) / Left 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 1/2000 dilution was used as the secondary antibody. Cells were stained with rabbit IgG or ab290730. Then stained with anti-CD3 conjugated to Alexa Fluor® 647.Gated on viable cells.



Flow Cytometry (Intracellular) - Anti-CD24 antibody [EPR26528-17] (BSA and Azide free) (ab290745)

Flow cytometric analysis of Neuro-2a (Mouse neuroblastoma neuroblast) cells labelling CD24 with ab290730 at 1/50 dilution (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). Goat Anti-Rabbit IgG (Alexa Fluor® 488, ab150081) at 1/2000 dilution was used as the secondary antibody. Gated on viable cells.



Western blot - Anti-CD24 antibody [EPR26528-17] (BSA and Azide free) (ab290745)

This data was developed using ab290730, the same antibody clone in a different buffer formulation. Blocking Buffer and concentration: 5% NFDM/TBST
All lanes:
Western blot - Anti-CD24 antibody [EPR26528-17] (ab290730) at 1/1000 dilution

Lane 1:
Neuro-2a (mouse neuroblastoma neuroblast) transfected with scrambled siRNA control, whole cell lysate

Lane 2:
Neuro-2a transfected with siRNA specifically targeti CD24, whole cell lysate 20

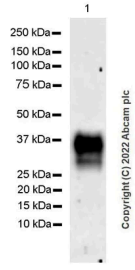
Secondary

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

Performed under reducing conditions.

Observed band size: 37 kDa

Exposure time: 3min



Western blot - Anti-CD24 antibody [EPR26528-17] (BSA and Azide free) (ab290745)

This data was developed using ab290730, the same antibody clone in a different buffer formulation. Blocking Buffer and concentration: 5% NFDM/TBST
All lanes:
Western blot - Anti-CD24 antibody [EPR26528-17] (ab290730) at 1/1000 dilution

All lanes:
Neuro-2a (mouse neuroblastoma neuroblast) whole cell lysate

Secondary

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

Performed under reducing conditions.

Observed band size: 37 kDa

Exposure time: 3min

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