abcam

ab316001

Anti-LY75/DEC-205 antibody [EPR27222-93] - 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	EPR27222-93
Purification technique	Affinity purification Protein A
Specificity	Not suitable for FC-human.
Concentration	1.038 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

WB

Tested

Species	Human, Mouse

Dilution info	-
Notes	-

Not recommended

Species	Rat
Dilution info	-
Notes	-

Flow Cyt

Tested

Species	Mouse
Dilution info	-
Notes	-

Not recommended

Species	Human, Rat
Dilution info	-
Notes	-

IP

Not recommended

Species	Mouse, Human, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-

Notes	-

ICC/IF

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Target data

See full target information Ly75

Function	Acts as an endocytic receptor to direct captured antigens from the extracellular space to a specialized antigen-processing compartment. Causes reduced proliferation of B lymphocytes (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C

Notes

ab316001 is the carrier-free version of ab316000.
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.

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.

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.

Supplementary info

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

Activity summary	The protein LY75 also known as DEC-205 is a type I transmembrane glycoprotein belonging to the C-type lectin receptor family. It has a molecular mass of approximately 205 kDa. LY75 is expressed mainly on dendritic cells macrophages and B lymphocytes playing a critical role in antigen uptake and processing. The receptor exhibits high-affinity binding to carbohydrate structures facilitating its function in the immune response.
Biological function summary	LY75/DEC-205 functions primarily in the immune system by mediating endocytosis of antigens for processing and presentation to T cells. It operates either alone or as part of a larger protein complex guiding immune surveillance and response. In particular it influences the maturation and activation of dendritic cells critical processes for initiating adaptive immunity.
Pathways	LY75/DEC-205 is integral to the antigen processing and presentation pathway interacting significantly with proteins like the major histocompatibility complex (MHC) molecules. The receptor also engages in the Toll-like receptor signaling pathway linking innate and adaptive immunity through its collaborations with these receptor proteins.
Associated diseases and disorders	LY75/DEC-205 associates with autoimmune diseases and certain cancers. Its expression and function in dendritic cells implicate it in autoimmune conditions such as lupus where immune regulation is disrupted. It may also relate to tumor progression in cancers with an immune evasion component like melanoma. This connection involves proteins like PD-L1 which tumor cells express to escape immune recognition.

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.

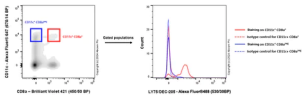
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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3 product images



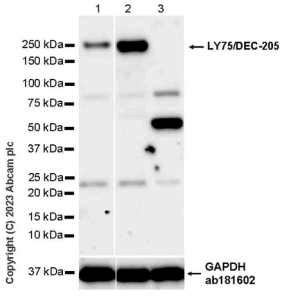
Flow Cytometry - Anti-LY75/DEC-205 antibody [EPR27222-93] - BSA and Azide free (ab316001)

This data was developed using ab316000, the same antibody clone in a different buffer formulation.

Flow cytometric analysis of Mouse splenocyte cells labelling LY75/DEC-205 with ab316000 at 1/500 dilution (0.1 ug)/Red and Blue compared with a isotype control.

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

Cells were stained with CD11c conjugated to Alexa Fluor® 647 and CD8a conjugated to Brilliant Violet 421. Gated on viable CD11c+ CD8a neg and CD11c+ CD8a+ populations.



Western blot - Anti-LY75/DEC-205 antibody [EPR27222-93] - BSA and Azide free (ab316001)

LY75/DEC-205 Western blot staining using rabbit Anti-LY75/DEC-205 antibody

This data was developed using ab316000, the same antibody clone in a different buffer formulation.

Low expression: liver (PMID: 7753172).

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 7553896).

The identity of the lower MW bands are unknown.

In Western blot, Anti-GAPDH antibody [EPR16891] - Loading Control (ab181602) staining at 1/200000 dilution.
All lanes:
Western blot - Anti-LY75/DEC-205 antibody [EPR27222-93] (ab316000) at 1/1000 dilution

Lane 1:
Human tonsil tissue lysate at 20 µg

Lane 2:
Human thymus tissue lysate at 20 µg

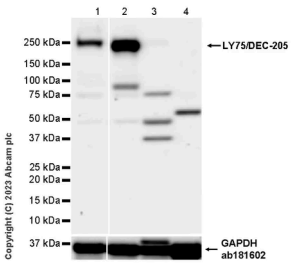
Lane 3:
Human liver tissue lysate at 20 µg

Secondary

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

Observed band size: 250 kDa, 36 kDa

Exposure time: 59s



Western blot - Anti-LY75/DEC-205 antibody [EPR27222-93] - BSA and Azide free (ab316001)

LY75/DEC-205 Western blot staining using rabbit Anti-LY75/DEC-205 antibody

This data was developed using ab316000, the same antibody clone in a different buffer formulation.

Low expression: liver, skeletal muscle (PMID: 7753172).

The expression profile/ molecular weight observed is consistent with what has been described in the literature (PMID: 7553896).

The identity of the lower MW bands are unknown.

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

All lanes:
Western blot - Anti-LY75/DEC-205 antibody [EPR27222-93] (ab316000) at 1/1000 dilution

Lane 1:
Mouse lymph node tissue lysate at 20 µg

Lane 2:
Mouse thymus tissue lysate at 20 µg

Lane 3:
Mouse liver tissue lysate at 20 µg

Lane 4:
Mouse skeletal muscle tissue lysate at 20 µg

Secondary

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

Observed band size: 205 kDa, 36 kDa

Exposure time: 59s

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