abcam

ab245186

Anti-CD226 antibody [EPR21245]

Recombinant | 20ul selling size

Key facts

Isotype	IgG1
Host species	Rabbit
Storage buffer	Preservative: 0.02% Sodium azide Constituents: PBS, 1% BSA
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Clone number	EPR21245
Concentration	0.495 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Mouse
Dilution info	1 µg/mL
Notes	-

Target data

See full target information Cd226

Function	Cell surface receptor that plays an important role in the immune system, particularly in intercellular adhesion, lymphocyte signaling, cytotoxicity and lymphokine secretion mediated by cytotoxic T-cells and NK cells (PubMed:19029379, PubMed:24658051, PubMed:26552706). Functions as a costimulatory receptor upon recognition of target cells, such as virus-infected or tumor cells. Upon binding to its ligands PVR/CD155 or NECTIN2/CD112 on target cells, promotes the cytotoxic activity of NK cells and CTLs, enhancing their ability to kill these cells (PubMed:30591568). Mechanistically, phosphorylation by Src kinases such as LYN of FYN, enables binding to adapter GRB2, leading to activation of VAV1, PI3K and PLCG1. Promotes also activation of kinases ERK and AKT, as well as calcium fluxes (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

This product was made using synthetic libraries and phage display technology.
This antibody is a recombinant chimeric antibody. Rabbit chimeric monoclonal antibody (Human Fab/ Rabbit Fc).

Supplementary info

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

Activity summary	CD226 also known as DNAM-1 (DNAX Accessory Molecule-1) is a transmembrane protein expressed on the surface of various immune cells such as T cells natural killer (NK) cells and some B cells. The protein has a molecular weight of approximately 65 kDa. CD226 is part of the Ig superfamily and plays a role in the adhesion and signaling processes of immune cells. It interacts with its ligands CD112 (PVRL2) and CD155 (PVR) on target cells facilitating immune synapse formation and cytotoxic activity.

Biological function summary	CD226 is involved in immune cell activation and receptor-mediated signaling. It aids the recognition and destruction of target cells by NK cells and cytotoxic T lymphocytes through its interaction with ligand-expressing cells. CD226 does not work alone but functions as part of a complex system of co-stimulatory and inhibitory receptors balancing immune responses. Its cooperation with receptors such as CD96 and TIGIT (T cell immunoreceptor with Ig and ITIM domains) modulates the activity of immune effector cells.
Pathways	CD226 takes part in immune signaling pathways that regulate cell-mediated cytotoxicity and inflammation. It is an important component of the immune checkpoint axis interacting closely with proteins like CD96 and TIGIT within these pathways. This interaction helps determine the fate of immune responses influencing the progression or resolution of inflammatory and autoimmune conditions. CD226 plays a role in the NK cell-mediated cytotoxicity pathway and the adaptive immune response.
Associated diseases and disorders	CD226 has been linked to autoimmune diseases such as multiple sclerosis and type 1 diabetes. Abnormal expression or function of CD226 can influence the pathogenesis of these conditions often through interactions with related proteins like TIGIT impacting immune tolerance and effector cell function. CD226's involvement in regulating immune responses highlights its importance as a potential therapeutic target in managing autoimmune and other immune-related disorders.

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

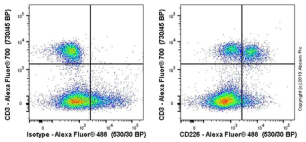
We do not recommend this combination. It is not covered by our product promise.

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.

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1 product image



Flow Cytometry - Anti-CD226 antibody [EPR21245] (ab245186)

CD226 Flow Cytometry staining using rabbit Anti-CD226 antibody

C57BL/6 mouse splenocytes stained with ab245186 (right) or chimeric Rabbit IgG (monoclonal) (left). C57BL/6 Mouse splenocytes were incubated for 30min on ice in 1x PBS containing 10ug/ml anti CD16/32 antibody and 10% normal goat serum to block FC receptors and non-specific protein-protein interaction followed by the antibody (ab245186) or chimeric Rabbit IgG Isotype ($1x10^6$ in 100ul at 1ug/ml) for 30 min on ice.
The secondary antibody Goat anti-rabbit IgG H&L (Alexa Fluor® 488, pre-adsorbed) (ab150081) was used at 1/2000 dilution for 30 min on ice.The cells were simultaneously stained with CD3 Alexa® 700 conjugated antibody.

Acquisition of >30,000 events were collected using a 50 mW Blue laser (488nm) and 530/30 bandpass filter. Events were gated on viable lymphocytes.

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