abcam

ab245985

Anti-Flt3 / CD135 antibody [EPR22232-403] - 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	EPR22232-403
Purification technique	Affinity purification Protein A
Concentration	1.063 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Human
Dilution info	-

Notes	-

Flow Cyt

Tested

Species	Human
Dilution info	-
Notes	-

WB

Not recommended

Species	Human
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human
Dilution info	-
Notes	-

ICC/IF

Not recommended

Species	Human
Dilution info	-
Notes	-

Target data

See full target information FLT3

Function	Tyrosine-protein kinase that acts as a cell-surface receptor for the cytokine FLT3LG and regulates differentiation, proliferation and survival of hematopoietic progenitor cells and of dendritic cells. Promotes phosphorylation of SHC1 and AKT1, and activation of the downstream effector MTOR. Promotes activation of RAS signaling and phosphorylation of downstream kinases, including MAPK1/ERK2 and/or MAPK3/ERK1. Promotes phosphorylation of FES, FER, PTPN6/SHP, PTPN11/SHP-2, PLCG1, and STAT5A and/or STAT5B. Activation of wild-type FLT3 causes only marginal activation of STAT5A or STAT5B. Mutations that cause constitutive kinase activity promote cell proliferation and resistance to apoptosis via the activation of multiple signaling pathways.

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab245985 is the carrier-free version of ab245840.

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	Flt3 also known as CD135 or FLT3 tyrosine kinase is a receptor tyrosine kinase that belongs to the class III receptor tyrosine kinase family. It has a molecular weight of approximately 160 kDa. This protein plays an important role in the development of hematopoietic stem and progenitor cells. Flt3 is expressed mainly in early progenitor cells within the bone marrow. Additionally it is present in some populations of mature cells in the peripheral blood and lymphoid organs.
Biological function summary	Flt3 functions as a receptor that is activated by binding to its ligand FLT3 ligand (FLT3L). This interaction stimulates the associated tyrosine kinase activity leading to auto-phosphorylation of Flt3 and subsequent downstream signaling. Flt3 does not form a heterocomplex rather it dimerizes upon ligand binding to initiate signaling cascades. These cascades promote cell proliferation differentiation and survival particularly impacting hematopoiesis and immune responses.
Pathways	Flt3 signaling impacts the internal signaling networks involving the MAPK/ERK and PI3K/AKT pathways both central to cell cycle regulation and apoptosis. Flt3 interacts functionally with proteins such as SHP2 and GRB2 in these pathways aiding signal transduction. The Flt3 receptor also shares functional motifs with KIT and PDGF receptors indicating shared regulatory mechanisms involved in cellular proliferation.
Associated diseases and disorders	Flt3 mutations especially internal tandem duplications in Flt3/ITD are significant in acute myeloid leukemia (AML) leading to abnormal cell growth and survival. These mutations often co-occur with other genetic anomalies such as NPM1 mutations contributing to the oncogenic process. The abnormal activation of Flt3 kinase activity also has ramifications in myelodysplastic syndromes making it a target for therapeutic intervention with drugs such as anti-FLT3 inhibitors in the treatment regime.

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.

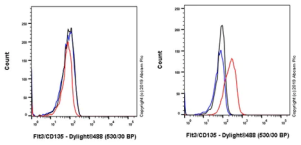
We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

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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1 product image



Flow Cytometry - Anti-Flt3 / CD135 antibody [EPR22232-403] - BSA and Azide free (ab245985)

Flt3 / CD135 Flow Cytometry staining using rabbit Anti-Flt3 / CD135 antibody

Flow cytometric analysis of U-937 (human histiocytic lymphoma monocyte) (Left) and THP-1 (human monocytic leukemia cell line) (Right) cells labeling Flt3 / CD135 with ab245840 at 1/50 dilution (red) compared with a Rabbit monoclonal IgG (ab172730) isotype control (black) and an unlabelled control (cells without incubation with primary antibody and secondary antibody) (blue). Goat anti rabbit IgG (Dylight® 488, ab98462) was used as the secondary antibody at 1/2000 dilution.

Gated on viable cells.

Negative control: U-937. (PMID: 12406902).

This data was developed using the same antibody clone in a different buffer formulation containing PBS, BSA, glycerol, and sodium azide (ab245840).

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