abcam

ab288664

Anti-SLC44A1/CTL1 antibody [VIM15]

Key facts

Isotype	IgG1
Host species	Mouse
Storage buffer	pH: 7.4 Preservative: 0.098% Sodium azide Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	Cell preparation containing MV-4-11 cell line protein. The exact immunogen used to generate this antibody is proprietary information.
Clone number	VIM15
Purification technique	Affinity purification Protein A
Specificity	The mouse monoclonal antibody VIM15 recognizes an extracellular epitope of CD92, a 70 kDa transmembrane glycoprotein expressed mainly on human peripheral blood monocytes and neutrophils, and several myeloid and T-cell lines.
Concentration	1 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

Flow Cyt

Tested

Species	Human
Dilution info	1-4 g/mL
Notes	-

Target data

See full target information SLC44A1

Function	Choline/H+ antiporter (PubMed:19357133, PubMed:23651124, PubMed:31855247, PubMed:33789160). Also acts as a high-affinity ethanolamine/H+ antiporter, regulating the supply of extracellular ethanolamine (Etn) for the CDP-Etn pathway, redistribute intracellular Etn and balance the CDP-Cho and CDP-Etn arms of the Kennedy pathway (PubMed:33789160). Involved in membrane synthesis and myelin production (PubMed:31855247).

Storage

Shipped at conditions	Blue Ice
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

Supplementary info

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

Activity summary	The target SLC44A1 also known as CTL1 is a member of the choline transporter-like family. This protein is essential for transporting choline across cell membranes. As a membrane protein it is involved in the uptake of choline a necessary precursor for the synthesis of phosphatidylcholine and acetylcholine. CTL1 has a molecular mass of approximately 70 kDa. It is expressed in various tissues including the brain liver and kidneys highlighting its importance across multiple biological systems.
Biological function summary	SLC44A1 plays a significant role in the synthesis of membrane phospholipids. It does not act alone; it forms part of a complex system involving other transporter proteins to ensure efficient choline uptake and utilization. By facilitating choline transport CTL1 supports the production of important lipids for cell membrane integrity and neurotransmission contributing to processes important for cellular communication and function.

Pathways	SLC44A1 impacts significant metabolic pathways such as the Kennedy pathway responsible for phosphatidylcholine biosynthesis. Its activity is closely associated with enzymes like choline kinase and phosphocholine cytidylyltransferase which further facilitate phospholipid biosynthesis. This pathway integration highlights its role in maintaining membrane structure and signaling functions.
Associated diseases and disorders	SLC44A1 has implications in neurological conditions such as Alzheimer’s disease and certain types of cancer. In Alzheimer's impaired choline transport can lead to deficits in acetylcholine a neurotransmitter necessary for memory and learning. Moreover aberrant expression of CTL1 is linked with oncogenic processes in liver cancer. In these cases its interaction with proteins associated with choline metabolism and cellular growth indicates potential mechanisms underlying disease pathogenesis.

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

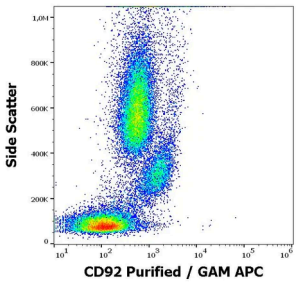
We do not recommend this combination. It is not covered by our product promise.

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In the unlikely event of one of our products not working as expected, you are covered by our product promise.

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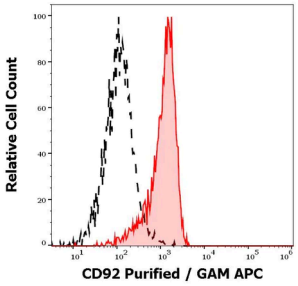
2 product images



Flow Cytometry - Anti-SLC44A1/CTL1 antibody [VIM15] (ab288664)

SLC44A1/CTL1 Flow Cytometry staining using mouse Anti-SLC44A1/CTL1 antibody

Flow cytometry surface staining pattern of human peripheral whole blood stained ab288664 (concentration in sample 0.6 µg/ml, GAM APC).



Flow Cytometry - Anti-SLC44A1/CTL1 antibody [VIM15] (ab288664)

SLC44A1/CTL1 Flow Cytometry staining using mouse Anti-SLC44A1/CTL1 antibody

Separation of monocytes stained anti-human ab288664 (concentration in sample 0.6 µg/ml, GAM APC, red-filled) from monocytes unstained by primary antibody (GAM APC, black-dashed) in flow cytometry analysis (surface staining).

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