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Anti-SLC1A5 / ASCT2 Reference Antibody (idactamab)

Recombinant Antibody
Catalog # APR10209

Product Information

Application	FC, Kinetics, Animal Model
Primary Accession	Q15758
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	56598

Additional Information

Target/Specificity	SLC1A5 / ASCT2
Endotoxin	
Conjugation	Unconjugated
Expression system	CHO Cell
Format	Purified monoclonal antibody supplied in PBS, pH6.0, without preservative.This antibody is purified through a protein A column.

Protein Information

Name	SLC1A5 {ECO:0000303|PubMed:23756778}
Function	Sodium-coupled antiporter of neutral amino acids. In a tri- substrate transport cycle, exchanges neutral amino acids between the extracellular and intracellular compartments, coupled to the inward cotransport of at least one sodium ion (PubMed:17094966, PubMed:23756778, PubMed:26492990, PubMed:29872227, PubMed:34741534, PubMed:8702519). The preferred substrate is the essential amino acid L- glutamine, a precursor for biosynthesis of proteins, nucleotides and amine sugars as well as an alternative fuel for mitochondrial oxidative phosphorylation. Exchanges L-glutamine with other neutral amino acids such as L-serine, L-threonine and L-asparagine in a bidirectional way. Provides L-glutamine to proliferating stem and activated cells driving the metabolic switch toward cell differentiation (PubMed:23756778, PubMed:24953180). The transport cycle is usually pH-independent, with the exception of L-glutamate. Transports extracellular L-glutamate coupled to the cotransport of one proton and one sodium ion in exchange for intracellular L-glutamine counter-ion. May provide for L-glutamate uptake in glial cells regulating glutamine/glutamate cycle in the nervous system (PubMed:32733894). Can transport D-amino acids. Mediates D-serine release from the retinal glia potentially affecting NMDA receptor function in retinal neurons (PubMed:17094966). Displays sodium- and amino

acid-dependent but uncoupled channel-like anion conductance with a preference SCN(-) >> NO3(-) > I(-) > Cl(-) (By similarity). Through binding of the fusogenic protein syncytin-1/ERVW-1 may mediate trophoblasts syncytialization, the spontaneous fusion of their plasma membranes, an essential process in placental development (PubMed:10708449, PubMed:23492904).

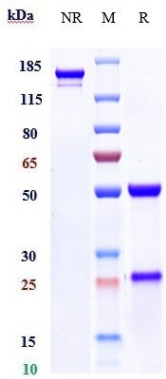
Cellular Location

Cell membrane; Multi-pass membrane protein. Melanosome Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV

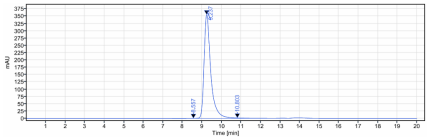
Tissue Location

Placenta, lung, skeletal muscle, kidney, pancreas, and intestine (PubMed:8702519). Expressed in CD34-positive hematopoietic progenitors (at protein level) (PubMed:24953180)

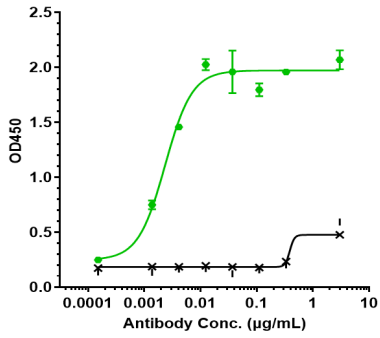
Images



Anti-SLC1A5 / ASCT2 Reference Antibody (idactamab) on SDS-PAGE under reducing (R) condition. The gel was stained with Coomassie Blue. The purity of the protein is greater than 95%



The purity of Anti-SLC1A5 / ASCT2 Reference Antibody (idactamab)is more than 99.15% ,determined by SEC-HPLC.



Immobilized human SLC1A5 293 VLP at16 μg/mL can bind Anti-SLC1A5 / ASCT2 Reference Antibody (idactamab),EC50=0.002341 μg/mL

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Human SLC1A5 HEK293 cells were stained with Anti-SLC1A5 / ASCT2 Reference Antibody (idactamab) and negative control protein respectively, washed and then followed by PE and analyzed with FACS, EC269=0.753 μg/mL