10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Anti-SLC1A5 / ASCT2 Reference Antibody (idactamab)

Recombinant Antibody
Catalog # APR10209

Product Information

Application	Functional assay, Kinetics (SPR), Kinetics (BLI), FACS, E, FTA
Primary Accession	Q15758
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	56598

Additional Information

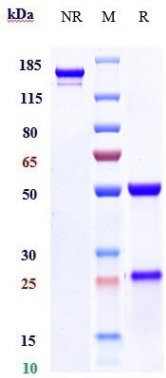
Target/Specificity	SLC1A5 / ASCT2
Endotoxin	
Conjugation	Unconjugated
Expression system	CHO
Format	Purified monoclonal antibody supplied in PBS, pH6.0, without preservative.This antibody is purified through a protein A column.

Protein Information

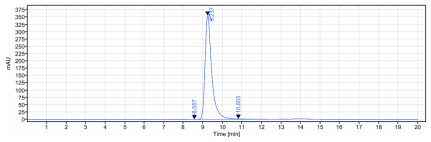
Name	SLC1A5 {ECO:0000303|PubMed:23756778}
Function	Sodium-coupled antiporter of neutral amino acids. In a tri- substrate transport cycle, exchanges neutral amino acids between the extracellular and intracellular compartments, coupled to the inward cotransport of at least one sodium ion (PubMed:17094966, PubMed:23756778, PubMed:26492990, PubMed:29872227, PubMed:34741534, PubMed:8702519, PubMed:39095408, PubMed:27272177). 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). Part of transport systems for D-amino acids. Mediates D-serine release from the retinal glia potentially affecting NMDA receptor function in retinal neurons.

	May contribute to D-serine reabsorption at the brush border of renal proximal tubules thus modulating the dynamics of urinary versus blood D-serine levels (PubMed:17094966, PubMed:38650461). 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, PubMed:38671230).
Cellular Location	Cell membrane; Multi-pass membrane protein. Apical cell membrane {ECO:0000250|UniProtKB:P51912}; Multi-pass membrane protein. Melanosome. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV. Restricted to the apical cell membrane of proximal tubule epithelial cells {ECO:0000250|UniProtKB:P51912, ECO:0000269|PubMed:17081065}
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 purity of the protein is greater than 95%.



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

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