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

Anti-SNAT2 Antibody

Catalog # AP53898

Product Information

Application	WB
Primary Accession	Q96QD8
Reactivity	Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	56026

Additional Information

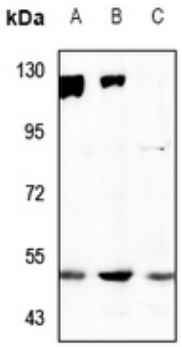
Gene ID	54407
Other Names	ATA2; KIAA1382; SAT2; SNAT2; Sodium-coupled neutral amino acid transporter 2; Amino acid transporter A2; Protein 40-9-1; Solute carrier family 38 member 2; System A amino acid transporter 2; System A transporter 1; System N amino acid transporter 2
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human SNAT2. The exact sequence is proprietary.
Dilution	WB~~1/500 - 1/1000
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

Name	SLC38A2 (HGNC:13448)
Function	Symporter that cotransports neutral amino acids and sodium ions from the extracellular to the intracellular side of the cell membrane (PubMed:10930503, PubMed:15774260, PubMed:15922329, PubMed:16621798). The transport is pH-sensitive, Li(+)-intolerant, electrogenic, driven by the Na(+) electrochemical gradient and cotransports of neutral amino acids and sodium ions with a stoichiometry of 1:1. May function in the transport of amino acids at the blood-brain barrier (PubMed:10930503, PubMed:15774260). May function in the transport of amino acids in the supply of maternal nutrients to the fetus through the placenta (By similarity). Maintains a key metabolic glutamine/glutamate balance underpinning retrograde signaling by dendritic release of the neurotransmitter glutamate (By similarity). Transports L-proline in differentiating osteoblasts for the efficient synthesis of proline-enriched

	proteins and provides proline essential for osteoblast differentiation and bone formation during bone development (By similarity).
Cellular Location	Cell membrane {ECO:0000250|UniProtKB:Q9JHE5}; Multi-pass membrane protein {ECO:0000250|UniProtKB:Q9JHE5} Note=Insulin promotes recruitment to the plasma membrane from a pool localized in the trans-Golgi network or endosomes. Enriched in the somatodendritic compartment of neurons, it is also detected at the axonal shaft but excluded from the nerve terminal {ECO:0000250|UniProtKB:Q9JHE5}
Tissue Location	Ubiquitously expressed (PubMed:10930503). Expressed in neocortex (PubMed:16616430). Widely expressed in the central nervous system with higher concentrations in caudal regions. Expressed by glutamatergic and GABAergic neurons together with astrocytes and other non-neuronal cells in the cerebral cortex (at protein level) (PubMed:15774260).

Images



Western blot analysis of SNAT2 expression in AML12 (A), HepG2 (B), U87MG (C) whole cell lysates. (Predicted band size: 56 kD; Observed band size: 50 kD)