

SLC1A2 Protein, Human (Sf9, His, MBP, FLAG)

Cat. No.:	HY-P702045
Synonyms:	SLC1A2; Excitatory amino acid transporter 2; Glutamate/aspartate transporter II; Sodium-dependent glutamate/aspartate transporter 2; Solute carrier family 1 member 2
Species:	Human
Source:	Sf9 insect cells
Accession:	P43004 (M1-K574)
Gene ID:	6506
Molecular Weight:	

PROPERTIES

Appearance	Solution.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	Please use rapid thawing with running water to thaw the protein.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice.

DESCRIPTION

Background	SLC1A2, a sodium-dependent, high-affinity amino acid transporter, plays a crucial role in the uptake of L-glutamate, L-aspartate, and D-aspartate. Operating as a symporter, this transporter facilitates the co-transport of one amino acid molecule with two or three Na ⁽⁺⁾ ions and one proton, concomitant with the counter-transport of one K ⁽⁺⁾ ion. Additionally, SLC1A2 mediates Cl ⁽⁻⁾ flux, decoupled from amino acid transport, preventing the accumulation of negative charges resulting from aspartate and Na ⁽⁺⁾ symport. This dual functionality is integral to its role in swiftly removing released glutamate from the synaptic cleft, thereby contributing to the prompt termination of the postsynaptic action of glutamate. The transporter's high-affinity and sodium-dependent mechanism underscore its significance in regulating neurotransmission and maintaining synaptic homeostasis.
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Caution: Product has not been fully validated for medical applications. For research use only.

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