

#8442 Store at -20°C

# SLC1A4 Antibody


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**For Research Use Only. Not for Use in Diagnostic Procedures.**

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H M	Endogenous	60-80	Rabbit	#P43007	6509

<b>Product Usage Information</b>	<b>Application</b> Western Blotting	<b>Dilution</b> 1:1000
<b>Storage</b>	Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.	
<b>Specificity / Sensitivity</b>	SLC1A4 Antibody recognizes endogenous levels of total SLC1A4 protein.	
<b>Source / Purification</b>	Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues near the carboxy terminus of human SLC1A4 protein. Antibodies are purified by protein A and peptide affinity chromatography.	
<b>Background</b>	SLC1A4, also known as ASCT1, is a neutral amino acid transporter. Its other name, ASCT1, was given because it mediates obligatory exchange of alanine, serine, cysteine, and threonine (1). SLC1A4 mediates the efflux of glutamate from the neuron into the synaptic junction via calcium-independent release, as well as mediating the efflux of L-serine from glial cells and its uptake by neurons (2). SLC1A4-mediated transport is shown to involve a symmetrical potassium-independent electroneutral exchange of neutral amino acids and sodium, such that the current activated during transport is carried only by chloride ions (3).	
<b>Background References</b>	1. Takasaki, C. et al. (2007) <i>Biomed Res</i> 28, 61-9. 2. Deng, X. et al. (2008) <i>BMC Psychiatry</i> 8, 58. 3. Zerangue, N. and Kavanaugh, M.P. (1996) <i>J Biol Chem</i> 271, 27991-4.	

<b>Species Reactivity</b>	Species reactivity is determined by testing in at least one approved application (e.g., western blot).
<b>Western Blot Buffer</b>	IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.
<b>Applications Key</b>	<b>WB:</b> Western Blotting
<b>Cross-Reactivity Key</b>	<b>H:</b> human <b>M:</b> mouse <b>R:</b> rat <b>Hm:</b> hamster <b>Mk:</b> monkey <b>Vir:</b> virus <b>Mi:</b> mink <b>C:</b> chicken <b>Dm:</b> D. melanogaster <b>X:</b> Xenopus <b>Z:</b> zebrafish <b>B:</b> bovine <b>Dg:</b> dog <b>Pg:</b> pig <b>Sc:</b> S. cerevisiae <b>Ce:</b> C. elegans <b>Hr:</b> horse <b>GP:</b> Guinea Pig <b>Rab:</b> rabbit <b>All:</b> all species expected
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