

SLC11A1 Protein, Human (Sf9, His, MBP, FLAG)

Cat. No.:	HY-P702016
Synonyms:	SLC11A1; Natural resistance-associated macrophage protein 1; NRAMP 1; Solute carrier family 11 member 1
Species:	Human
Source:	Sf9 insect cells
Accession:	P49279 (T2-G550)
Gene ID:	6556
Molecular Weight:	

PROPERTIES

Appearance	Solution.
Formulation	Supplied as a 0.22 µm filtered solution of 50 mM Tris-HCl, pH7.5, 200 mM NaCl, 20% glycerol.
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	SLC11A1 Protein, a macrophage-specific antiporter, facilitates bidirectional metal ion transport against a proton gradient. Positioned on late endosomal lysosomal membranes, it transfers bivalent cations from the cytosol into these acidic compartments, impacting antimicrobial activity directly. Notably involved in iron metabolism, it plays a crucial role in the host's innate resistance to intracellular parasites. This resistance mechanism involves sequestering Fe(2+) and Mn(2+), essential cofactors for both prokaryotic and eukaryotic catalases and superoxide dismutases. The sequestration serves a dual purpose, protecting macrophages from reactive oxygen species and denying pathogens the essential cations for synthesizing their protective enzymes (Probable).
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Caution: Product has not been fully validated for medical applications. For research use only.

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA