

SLC30A10 Protein, Human, Recombinant (His & Myc)

General Information

Synonyms:	SLC30A10;ZNT8;Zinc transporter 10 (ZnT-10);ZNT10;Solute carrier family 30 member 10; Calcium/manganese antiporter SLC30A10
Protein Construction:	300-485 aa
Species:	Human
Expression Host:	E. coli
Accession:	Q6XR72
Molecular Weight:	27.9 kDa (predicted)
AA Sequence:	KETAAILLQMVPKGVNMEELMSKLSAVPGISSVHEVHIWELVSGKIIATLHIKYPKDRGYQDASTKIREIFHHAG IHNVTIQFENVDLKEPLEQKDLLLNCNSPCISKGCAKQLCCPPGALPLAHVNGCAEHNGGPSLDTYGSDGLSR RDAREVAIEVSLDSCSLSDHGQSLNKTQEDQCYVNRTHF

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	> 90% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/ μ g of the protein as determined by the LAL method.
Formulation:	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose, pH 8.0.

Preparation and Storage

Reconstitution:	Reconstitute the lyophilized protein in sterile deionized water. The product concentration should not be less than 100 μ g/mL. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.
Stability & Storage:	Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots. <small>Actual storage temperature shall be subject to the COA.</small>
Shipping:	In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Plays a pivotal role in manganese transport. Manganese is an essential cation for the function of several enzymes, including some crucially important for the metabolism of neurotransmitters and other neuronal metabolic

pathways. However, elevated levels of manganese are cytotoxic and induce oxidative stress, mitochondrial dysfunction and apoptosis. Acts as manganese efflux transporter and confers protection against manganese-induced cell death. Also acts as zinc transporter involved in zinc homeostasis. Seems to mediate zinc transport into early endosomes and recycling endosomes to prevent zinc toxicity; the function may be regulated by heterodimerization with other zinc transporters of the SLC30A subfamily. The SLC30A3:SLC30A10 heterodimer is involved in zinc transport-dependent regulation of the EGFR/ERK transduction pathway in endosomes. May be involved in regulation of zinc-dependent senescence of vascular smooth muscle cells.

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