Recombinant Full Length Human SLC4A1 Protein, C-Flag-tagged

Cat. No. SLC4A1-89HFL **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Full Length Human SLC4A1 Protein, fused to Flag-tag at C-terminus, was expressed in Mammalian cells.
Species	Human
Source	Mammalian Cells
Description	The protein encoded by this gene is part of the anion exchanger (AE) family and is expressed in the erythrocyte plasma membrane, where it functions as a chloride/bicarbonate exchanger involved in carbon dioxide transport from tissues to lungs. The protein comprises two domains that are structurally and functionally distinct. The N-terminal 40kDa domain is located in the cytoplasm and acts as an attachment site for the red cell skeleton by binding ankyrin. The glycosylated C-terminal membrane-associated domain contains 12-14 membrane spanning segments and carries out the stilbene disulphonate-sensitive exchange transport of anions. The cytoplasmic tail at the extreme C-terminus of the membrane domain binds carbonic anhydrase II. The encoded protein associates with the red cell membrane protein glycophorin A and this association promotes the correct folding and translocation of the exchanger. This protein is predominantly dimeric but forms tetramers in the presence of ankyrin. Many mutations in this gene are known in man, and these mutations can lead to two types of disease: destabilization of red cell membrane leading to hereditary spherocytosis, and defective kidney acid secretion leading to distal renal tubular acidosis. Other mutations that do not give rise to

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	disease result in novel blood group antigens, which form the Diego blood group system. Southeast Asian ovalocytosis (SAO, Melanesian ovalocytosis) results from the heterozygous presence of a deletion in the encoded protein and is common in areas where Plasmodium falciparum malaria is endemic. One null mutation in this gene is known, resulting in very severe anemia and nephrocalcinosis.
Form	25 mM Tris HCl, pH 7.3, 100 mM glycine, 10% glycerol.
Molecular Mass	101.6 kDa
AA Sequence	MEELQDDYEDMMEENLEQEEYEDPDIHESQMEEPAAHDTEATATDYHTTSHPGTH KVYVELQELVMDEKN QELRWMEAARWVQLEENLGENGAWGRPHLSHLTFWSLLE LRRVFTKGTVLLDLQETSLAGVANQLLDRFI FEDQIRPQDREELLRALLLKHSHAGEL EALGGVKPAVLTRSGDPSQPLLPQHSSLETQLFCEQGDGGTEG HSPSGILEKIPPD SEATLVLVGRADFLEQPVLGFVRLQEAAELEAVELPVPIRFLFVLLGPEAPHIDYTQ L GRAAATLMSERVFRIDAYMAQSRGELLHSLEGFLDCSLVLPPTDAPSEQALLSLVPV QRELLRRRYQSS PAKPDSSFYKGLDLNGGPDDPLQQTGQLFGGLVRDIRRRYPYY LSDITDAFSPQVLAAVIFIYFAALSPA ITFGGLLGEKTRNQMGVSELLISTAVQGILFAL LGAQPLLVVGFSGPLLVFEEAFFSFCETNGLEYIVGR VWIGFWLILLVVLVVAFEGSF LVRFISRYTQEIFSFLISLIFIYETFSKLIKIFQDHPLQKTYNYNVLMV PKPQGPLPNTAL LSLVLMAGTFFFAMMLRKFKNSSYFPGKLRRVIGDFGVPISILIMVLVDFFIQDTYTQ K LSVPDGFKVSNSSARGWVIHPLGLRSEFPIWMMFASALPALLVFILIFLESQITTLIVSK PERKMVKGS GFHLDLLLVVGMGGVAALFGMPWLSATTVRSVTHANALTVMGKAST PGAAAQIQEVKEQRISGLLVAVLV GLSILMEPILSRIPLAVLFGIFLYMGVTSLSGIQLF DRILLLFKPPKYHPDVPYVKRVKTWRMHLFTGIQ IICLAVLWVVKSTPASLALPFVLIL TVPLRRVLLPLIFRNVELQCLDADDAKATFDEEEGRDEYDEVAMP VTRTRPLEQKLISEEDLAANDILDYKDDDDKV
Purity	> 80% as determined by SDS-PAGE and Coomassie blue staining.

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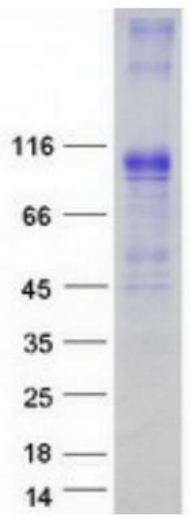
Stability	Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.
Storage	Store at -80 centigrade.
Concentration	>50 ug/mL as determined by microplate BCA method.
Preparation	Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.
Protein Families	Druggable Genome, Transmembrane
Full Length	Full L.

GENE INFORMATION

Gene Name	SLC4A1 solute carrier family 4 member 1 (Diego blood group) [Homo sapiens (human)]
Official Symbol	SLC4A1
Synonyms	DI; FR; SW; WD; WR; AE1; CHC; SAO; WD1; BND3; EPB3; SPH4; CD233; EMPB3; RTA1A
Gene ID	6521
mRNA Refseq	NM_000342.4
Protein Refseq	NP_000333.1
MIM	109270

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UniProt ID	P02730



Coomassie blue staining of purified SLC4A1 protein.

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