SLC4A1 Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	SLC4A1, Polyclonal Antibody
Full Product Name	SLC4A1 Antibody
Product Gene Name	anti-SLC4A1 antibody
Product Synonym Names	DI; FR; SW; WD; WR; AE1; WD1; BND3; EPB3; CD233; EMPB3; RTA1A
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Rabbit IgG in pH7.4 PBS, 0.05% NaN3, 40% Glycerol.
Purity/Purification	Antigen affinity purification.
Specificity	The antibody detects endogenous levels of total SLC4A1 protein.
Preparation and Storage	Store at 4 degree C short term. Aliquot and store at -20 degree C long term. Avoid freeze/thaw cycles.
OMIM	109270
3D Structure	ModBase 3D Structure for P02730
Immunogen	Synthetic peptide corresponding to residues near the N terminal of human solute carrier family 4 (anion exchanger), member 1
Product Categories/Family for anti-SLC4A1 antibody	Primary Antibody
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-SLC4A1 antibody	Immunohistochemistry (IHC)
Application Notes for anti-SLC4A1 antibody	IHC: 1:25-1:100
Related Product Information for anti-SLC4A1 antibody	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
Other Notes	Small volumes of anti-SLC4A1 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SLC4A1 purchase	MBS8590780 is an antibody targeting SLC4A1. Also known as SLC4A1 Antibody. Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SLC4A1. It may not necessarily be applicable to this product.

NCBI GI #	4507021
NCBI GeneID	6521
NCBI Accession #	NP_000333.1
UniProt Primary Accession #	P02730
UniProt Secondary Accession #	P78487; Q1ZZ45; Q4KKW9; Q4VB84; Q9UCY7; Q9UDJ1; G4V2I6
UniProt Related Accession #	P02730
GenBank Nucleotide #	NM_000342.3
NCBI Official Full Name	band 3 anion transport protein
NCBI Official Synonym Full Names	solute carrier family 4 member 1 (Diego blood group)
NCBI Official Symbol	SLC4A1
NCBI Official Synonym Symbols	DI; FR; SW; WD; WR; AE1; CHC; SAO; WD1; BND3; EPB3; SPH4; CD233; EMPB3; RTA1A
UniProt Protein Name	Band 3 anion transport protein
UniProt Synonym Protein Names	Anion exchange protein 1; AE 1; Anion exchanger 1; Solute carrier family 4 member 1; CD_antigen: CD233
Protein Family	Band 3 anion exchange protein
UniProt Gene Name	SLC4A1
UniProt Synonym Gene Names	AE1; DI; EPB3; AE 1; Anion exchanger 1
UniProt Entry Name	B3AT_HUMAN
NCBI Protein Information	band 3 anion transport protein
NCBI Summary for SLC4A1	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 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. [provided by RefSeq, Jul 2008]
UniProt Comments for SLC4A1	Functions both as a transporter that mediates electroneutral anion exchange across the cell membrane and as a structural protein. Major integral membrane glycoprotein of the erythrocyte membrane; required for normal flexibility and stability of the erythrocyte membrane and for normal erythrocyte shape via the interactions of its cytoplasmic domain with cytoskeletal proteins, glycolytic enzymes, and hemoglobin. Functions as a transporter that mediates the 1:1 exchange of inorganic anions across the erythrocyte membrane. Mediates chloride-bicarbonate exchange in the kidney, and is required for normal acidification of the urine.
Research Articles on SLC4A1	**1.** The evolutionary origin of Southeast Asian Ovalocytosis, characterizing DNA sequence variation around the causal mutation in the SLC4A1 gene.
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