

Mouse anti-Human SLC4A1/CD233/Band 3 Monoclonal Antibody | anti-SLC4A1 antibody

Anti-SLC4A1/CD233/Band 3 Antibody Picoband (monoclonal, 5G2G7)

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA126884	Mouse	Human	Flow Cytometry, Functional Assay, Immunohistochemistry, Western Blot

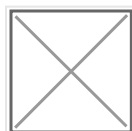
PRODUCT SYNONYMS

SLC4A1/CD233/Band 3; Monoclonal Antibody; Anti-SLC4A1/CD233/Band 3 Antibody Picoband (monoclonal; 5G2G7); anti-SLC4A1 antibody

PRODUCT SPECIFICATIONS

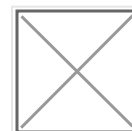
Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	Mouse IgG2b
Clone Number	5G2G7
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml. (varies by lot)
Applicable Applications for anti-SLC4A1 antibody	FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), WB (Western Blot)
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Immunogen	E Coli-derived human SLC4A1 (Position: E28-N365). Human SLC4A1 shares 75.7% and 74.5% amino acid (aa) sequence identity with and rat SLC4A1, respectively.
Preparation and Storage	Store at -20 degree C for one year from date of receipt. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for six months. Avoid repeated freezing and thawing.

IMAGES



FCM/FACS (Flow Cytometry)

Figure 3. Flow Cytometry analysis of HepG2 cells using anti-SLC4A1 antibody (AAA126884). Overlay histogram showing HepG2 cells stained with AAA126884 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-SLC4A1 Antibody (AAA126884, 1 ug/1x10⁶ cells) for 30 min at 20 degree C. DyLight488 conjugated goat anti-mouse IgG was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was mouse IgG (1 ug/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



IHC (Immunohistochemistry)

Figure 2. IHC analysis of SLC4A1 using anti-SLC4A1 antibody (AAA126884). SLC4A1 was detected in a paraffin-embedded section of human spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml mouse anti-SLC4A1 Antibody (AAA126884) overnight at 4 degree C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37 degree C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit with DAB as the chromogen.



WB (Western Blot)

Figure 1. Western blot analysis of SLC4A1 using anti-SLC4A1 antibody (AAA126884). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel)/90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human K562 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with mouse anti-SLC4A1 antigen affinity purified monoclonal antibody (#AAA126884) at 0.5 ug/mL overnight at 4 degree C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for SLC4A1 at approximately 102 kDa. The expected band size for SLC4A1 is at 102 kDa.

ADDITIONAL INFORMATION

Related Product Information for anti-SLC4A1 antibody	Band 3 is also known as 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.
Product Categories/Family for anti-SLC4A1 antibody	Primary Antibodies, Mouse Monoclonal Antibodies

NCBI AND UNIPROT INFORMATION

NCBI GI #	4507021
NCBI GeneID	6521
NCBI Accession #	NP_000333.1
NCBI GenBank Nucleotide #	NM_000342.3
UniProt Accession #	P02730; P78487; Q1ZZ45; Q4KKW9; Q4VB84; Q9UCY7; Q9UDJ1; G4V216
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
NCBI Protein Information	band 3 anion transport protein
UniProt Protein Name	Band 3 anion transport protein
UniProt Gene Name	SLC4A1
UniProt Synonym Gene Names	AE1; DI; EPB3; AE 1; Anion exchanger 1
UniProt Entry Name	B3AT_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/monoclonal/slc4a1-cd233-band-3-antibody-clone-5g2g7-flow-cytometry-immunohistochemistry-western-blot-elisa/126884>