

ARG44740 anti-Band 3 antibody

Package: 50 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody recognizes Band 3
Tested Reactivity	Hu
Tested Application	IHC-P, IP
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Target Name	Band 3
Species	Human
Conjugation	Un-conjugated
Alternate Names	AE1; FR; WD; Anion exchanger 1; DI; RTA1A; Solute carrier family 4 member 1; EPB3; AE 1; SW; WD1; CD233; BND3; CD antigen CD233; WR; EMPB3; Anion exchange protein 1; Band 3 anion transport protein

Application Instructions

Application table	Application	Dilution
	IHC-P	1-5 µg/mL
	IP	10 µg/mL
Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.	

Properties

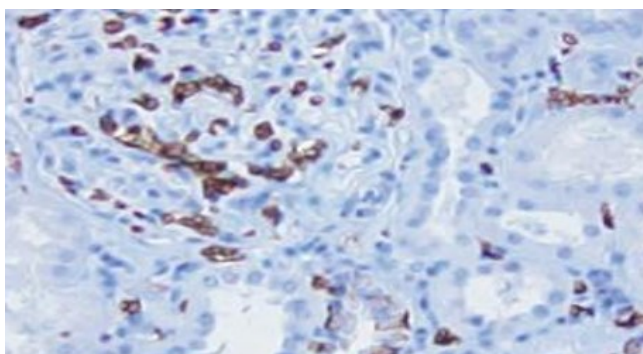
Form	Liquid
Purification	Protein A purification
Buffer	PBS with 0.09% sodium azide
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

Gene Symbol	SLC4A1
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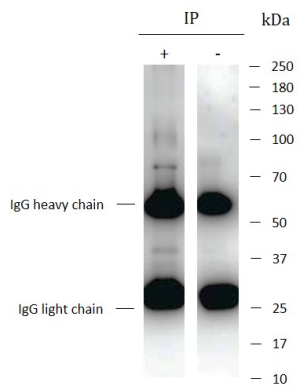
Gene Full Name	solute carrier family 4 (anion exchanger), member 1 (Diego blood group)
Background	The protein encoded by this gene is part of the anion exchanger (AE) family and is expressed in the erythrocyte plasma membrane, where it functions as a chloride/bicarbonate exchanger involved in carbon 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]
Function	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. [UniProt]
Calculated Mw	102 kDa
PTM	Phosphorylated on Tyr-8 and Tyr-21 most likely by SYK. PP1-resistant phosphorylation that precedes Tyr-359 and Tyr-904 phosphorylation. Phosphorylated on Tyr-359 and Tyr-904 most likely by LYN. PP1-inhibited phosphorylation that follows Tyr-8 and Tyr-21 phosphorylation. N-glycosylated. [UniProt]

Images



ARG44740 anti-Band 3 antibody IHC-P image

Immunohistochemistry: Human kidney stained with ARG44740 anti-Band 3 antibody at 1 µg/mL dilution.



ARG44740 anti-Band 3 antibody IP image

Immunoprecipitation: Kidney lysate immunoprecipitated with 2.5 μ g of ARG44740 anti-Band 3 antibody.