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Product datasheet for TA591014

Band 3 (SLC4A1) Rabbit Monoclonal Antibody [Clone ID: OTIR5D8]

Product data:

Product Type:	Primary Antibodies
Clone Name:	OTIR5D8
Applications:	SISCAPA
Reactivity:	Human
Host:	Rabbit
Isotype:	IgG
Clonality:	Monoclonal
Immunogen:	Synthetic peptide (the amino acid sequence is considered to be commercially sensitive) within Human SLC4A1 (NP_000333). The exact sequence is proprietary.
Formulation:	PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.
Concentration:	Lot dependent; please refer to CoA along with shipment
Purification:	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Predicted Protein Size:	101.6 kDa
Gene Name:	solute carrier family 4 member 1 (Diego blood group)
Database Link:	NP_000333 Entrez Gene 6521 Human P02730

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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]

Synonyms: AE1; BND3; CD233; CHC; DI; EMPB3; EPB3; FR; RTA1A; SAO; SPH4; SW; WD; WD1; WR

Protein Families: Druggable Genome, Transmembrane