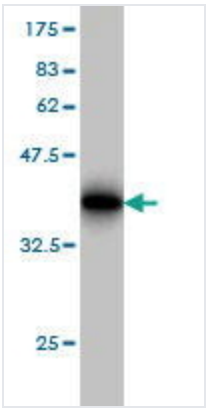
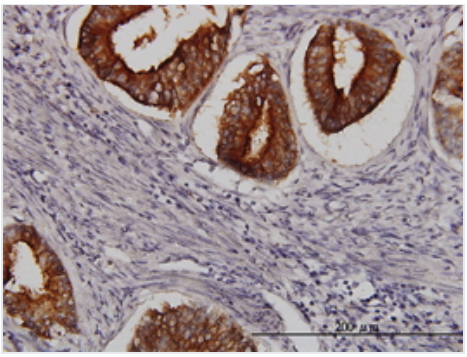
SLC11A2 Antibody – Mouse Monoclonal

PRODUCT OVERVIEW

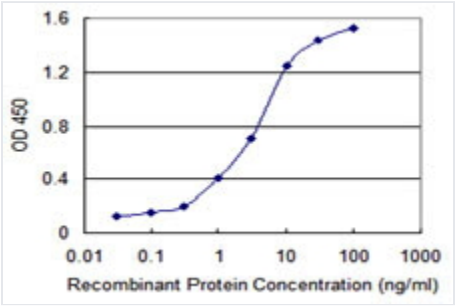
Product Name	SLC11A2, Monoclonal Antibody
Full Product Name	SLC11A2 (Solute Carrier Family 11 Member 2, DCT1, DMT1, NRAMP2, Natural Resistance-associated Macrophage Protein 2, Divalent Cation Transp
Product Gene Name	anti-SLC11A2 antibody
Clonality	Monoclonal
Isotype	IgG2a,k
Clone Number	4C6
Host	Mouse
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with Allophycocyanin (APC).
Purity/Purification	Purified by Protein A Affinity Chromatography.
Specificity	Recognizes human SLC11A2.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amo
Molecular Weight	61kDa
OMIM	phenotype 600523
3D Structure	ModBase 3D Structure for P49281
Immunogen	Partial recombinant corresponding to aa1-66 from human SLC11A2 (NP_000608) with GST tag. MW of the GST tag alone is 26kD.
Immunogen Sequence	MDLELDEYYNKTLATENNTAATRNSDFPVWDDYKSSVDDLQYFLIGLYTFVSLLGFMGNLLILMALMKKRNQKTTVNFLIGNLAFSDILVVLFCSPFTLTSVL
Conjugate	APC
Product Categories/Family for anti-SLC11A2 antibody	Antibodies; Ion Channel
Applications Tested/Suitable for anti-SLC11A2 antibody	ELISA (EIA), Immunohistochemistry (IHC) Paraffin, Western Blot (WB)
Application Notes for anti-SLC11A2 antibody	IHC-P: 3ug/ml Applications are based on unconjugated antibody.
Related Product Information for anti-SLC11A2 antibody	MBS6139079 is an antibody targeting SLC11A2. Also known as SLC11A2 (Solute Carrier Family 11 Member 2, DCT1, DMT1, NRAMP2, Natural Resis
Other Notes	Small volumes of anti-SLC11A2 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If nec



Western Blot (WB) of anti-SLC11A2 antibody
Western Blot detection against Immunogen (32.89kD).



Immunohistochemistry (IHC) of anti-SLC11A2 antibody
Immunoperoxidase of monoclonal antibody to SLC11A2 on formalin-fixed paraffin-embedded human endometrium cancer. [antibody concentration 3ug/ml]



Testing Data of anti-SLC11A2 antibody
Detection limit for recombinant GST tagged SLC11A2 is 0.03ng/ml as a capture antibody.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SLC11A2. It may not necessarily be applicable to this product.

NCBI GI #	10835169
NCBI GeneID	4891
NCBI Accession #	NP_000608
UniProt Primary Accession #	P49281
UniProt Related Accession #	P49281
GenBank Nucleotide #	NM_000617
NCBI Official Full Name	natural resistance-associated macrophage protein 2 isoform 3
NCBI Official Synonym Full Names	solute carrier family 11 member 2
NCBI Official Symbol	SLC11A2
NCBI Official Synonym Symbols	DCT1; DMT1; AHMIO1; NRAMP2
UniProt Protein Name	Natural resistance-associated macrophage protein 2
UniProt Synonym Protein Names	Divalent cation transporter 1; Divalent metal transporter 1; DMT-1; Solute carrier family 11 member 2
Protein Family	Natural resistance-associated macrophage protein
UniProt Gene Name	SLC11A2
UniProt Synonym Gene Names	DCT1; DMT1; NRAMP2; NRAMP 2; DMT-1
UniProt Entry Name	NRAM2_HUMAN
NCBI Protein Information	natural resistance-associated macrophage protein 2

NCBI Summary for SLC11A2	This gene encodes a member of the solute carrier family 11 protein family. The product of this gene transports divalent metals and is involved in iron absorption. Mutations in this gene are associated with hypochromic microcytic anemia with iron overload. A related solute carrier family 11 protein gene is located on chromosome 2. Multiple transcript variants encoding different isoforms have been found for this gene.[provided by RefSeq, Apr 2010]
UniProt Comments for SLC11A2	SLC11A2: Important in metal transport, in particular iron. Can also transport manganese, cobalt, cadmium, nickel, vanadium and lead. Involved in apical iron uptake into duodenal enterocytes. Involved in iron transport from acidified endosomes into the cytoplasm of erythroid precursor cells. May play an important role in hepatic iron accumulation and tissue iron distribution. Defects in SLC11A2 are a cause of hypochromic microcytic anemia (HCMA). The disease is characterized by an abnormal hemoglobin content in the erythrocytes which are reduced in size. It may be hereditary or acquired. Mutations in SLC11A2 are associated with progressive liver iron overload and normal to moderately elevated serum ferritin levels. Belongs to the NRAMP family. 4 isoforms of the human protein are produced by alternative splicing. Protein type: Transporter, SLC family; Membrane protein, multi-pass; Membrane protein, integral; Transporter Chromosomal Location of Human Ortholog: 12q13 Cellular Component: cell surface; integral to plasma membrane; late endosome membrane; lysosomal membrane; lysosome; early endosome; trans-Golgi network; mitochondrial outer membrane; recycling endosome; membrane; perinuclear region of cytoplasm; apical part of cell; cytoplasm; apical plasma membrane; late endosome; plasma membrane; vacuole; cytoplasmic vesicle; nucleus; brush border Molecular Function: cadmium ion transmembrane transporter activity; nickel ion transmembrane transporter activity; inorganic cation transmembrane transporter activity; zinc ion binding; hydrogen ion transmembrane transporter activity; manganese ion transmembrane transporter activity; cadmium ion binding; vanadium ion transmembrane transporter activity; nickel ion binding; copper ion transmembrane transporter activity; protein binding; copper ion binding; manganese ion binding; iron ion binding; calcium ion transmembrane transporter activity; zinc ion transmembrane transporter activity; cobalt ion transmembrane transporter activity; lead ion transmembrane transporter activity; ferrous iron transmembrane transporter activity; cobalt ion binding; solute:hydrogen symporter activity Biological Process: caspase activation; lead ion transport; erythrocyte development; cellular copper ion homeostasis; cellular iron ion homeostasis; dendrite morphogenesis; manganese ion transport; copper ion transport; response to manganese ion; nickel ion transport; response to cadmium ion; learning and/or memory; vanadium ion transport; detection of oxygen; ferrous iron transport; response to lead ion; response to hypoxia; transmembrane transport; response to iron ion; cobalt ion transport; heme biosynthetic process Disease: Anemia, Hypochromic Microcytic, With Iron Overload 1
Research Articles on SLC11A2	**1.** Solute carrier family-11 member-2 (SLC11A2) homozygous CC genotype for IVS4+44C/A showed significant correlation with Type-2 diabetes (T2DM) risk, suggesting that presence of C allele of IVS4+44C/A plays pathological roles.
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