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SLC11A2 Recombinant Rabbit mAb

Catalog # AP98681

Product Information

Application	WB, IHC-P, IHC-F, IF, IP, E
Primary Accession	P49281
Other Accession	P49281
Reactivity	Human
Host	Rabbit
Clonality	Recombinant
Calculated MW	62266
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the villin/gelsolin family.
Post-translational modifications	Actin-bundling activity is abolished upon phosphorylation by cAMP-dependent protein kinase.
Background Descriptions	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],

Additional Information

Gene ID	4891
Other Names	AHMIO1; DCT1; DMT1; NRAMP2; mk; van; NRAM2_HUMAN; SLC11A2; NRAMP 2; Divalent cation transporter 1; Divalent metal transporter 1 (DMT-1); Solute carrier family 11 member 2; NRAM2_MOUSE; solute carrier family 11 (proton-coupled divalent metal ion transporter), member 2; Natural resistance-associated macrophage protein 2; divalent metal transporter 1; DMT-1
Dilution	IHC-P=1:50-200,IHC-F=1:50-200,WB=1:500-2000,IF=1:50-200,ELISA=1:5000-10 000,IP=1:50-200
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	SLC11A2
Synonyms	DCT1, DMT1, NRAMP2
Function	Proton-coupled metal ion symporter operating with a proton to metal ion stoichiometry of 1:1 (PubMed:17109629, PubMed:17293870, PubMed:22736759, PubMed:25326704, PubMed:25491917, PubMed:39824808). Selectively transports various divalent metal cations, in decreasing affinity: Cd(2+) > Fe(2+) > Co(2+), Mn(2+) >> Zn(2+), Ni(2+), VO(2+) (PubMed:17109629, PubMed:17293870, PubMed:22736759, PubMed:25326704, PubMed:25491917). Essential for maintenance of iron homeostasis by modulating intestinal absorption of dietary Fe(2+) and TF-associated endosomal Fe(2+) transport in erythroid precursors and other cells (By similarity). Enables Fe(2+) and Mn(2+) ion entry into mitochondria, and is thus expected to promote mitochondrial heme synthesis, iron-sulfur cluster biogenesis and antioxidant defense (By similarity) (PubMed:24448823). Can mediate uncoupled fluxes of either protons or metal ions.
Cellular Location	[Isoform 1]: Early endosome membrane; Multi-pass membrane protein. Apical cell membrane; Multi-pass membrane protein. Note=Predominantly localizes in early endosomes that underlie the apical membrane of polarized epithelia. [Isoform 3]: Cell membrane
Tissue Location	Ubiquitously expressed. Expressed in erythroid progenitors.

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