

SLC11A2 / DMT1 Antibody (clone 4C6)
Mouse Monoclonal Antibody
Catalog # ALS14114**Specification**

SLC11A2 / DMT1 Antibody (clone 4C6) - Product Information

Application	IHC
Primary Accession	P49281
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Calculated MW	62kDa KDa

SLC11A2 / DMT1 Antibody (clone 4C6) - Additional Information**Gene ID** 4891**Other Names**

Natural resistance-associated macrophage protein 2, NRAMP 2, Divalent cation transporter 1, Divalent metal transporter 1, DMT-1, Solute carrier family 11 member 2, SLC11A2, DCT1, DMT1, NRAMP2

Target/Specificity

Human SLC11A2

Reconstitution & Storage

Short term 4°C, long term aliquot and store at -20°C, avoid freeze thaw cycles.

Precautions

SLC11A2 / DMT1 Antibody (clone 4C6) is for research use only and not for use in diagnostic or therapeutic procedures.

SLC11A2 / DMT1 Antibody (clone 4C6) - 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: 22736759, PubMed: 25491917, PubMed: 17293870, PubMed: 25326704). 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: 22736759, PubMed: 25491917, PubMed: 17293870, PubMed: 25326704).

[22736759](http://www.uniprot.org/citations/22736759), PubMed:<[25491917](http://www.uniprot.org/citations/25491917)>, PubMed:<[17293870](http://www.uniprot.org/citations/17293870)>, PubMed:<[25326704](http://www.uniprot.org/citations/25326704)>). 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 (PubMed:<[24448823](http://www.uniprot.org/citations/24448823)>) (By similarity). 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

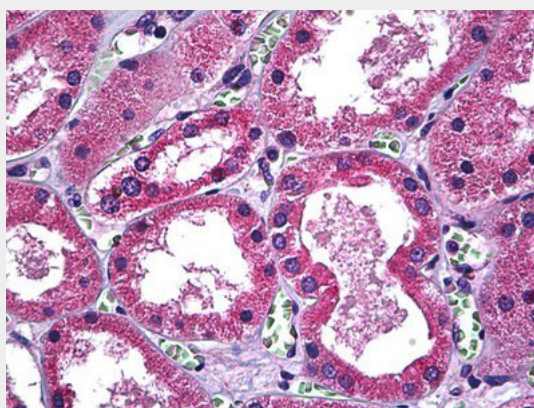
Ubiquitously expressed. Expressed in erythroid progenitors.

SLC11A2 / DMT1 Antibody (clone 4C6) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SLC11A2 / DMT1 Antibody (clone 4C6) - Images



Anti-SLC11A2 antibody IHC of human kidney.

SLC11A2 / DMT1 Antibody (clone 4C6) - Background

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. May serve to import iron

into the mitochondria.

SLC11A2 / DMT1 Antibody (clone 4C6) - References

Kishi F.,et al.Mol. Immunol. 34:839-842(1997).
Kishi F.,et al.Biochem. Biophys. Res. Commun. 251:775-783(1998).
Lee P.L.,et al.Blood Cells Mol. Dis. 24:199-215(1998).
Hubert N.,et al.Proc. Natl. Acad. Sci. U.S.A. 99:12345-12350(2002).
Worthington M.T.,et al.Submitted (FEB-1998) to the EMBL/GenBank/DDBJ databases.