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SLC11A1 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP8514c

Specification

SLC11A1 Antibody (Center) Blocking Peptide - Product Information

Primary Accession P49279

SLC11A1 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 6556

Other Names
Natural resistance-associated macrophage protein 1, NRAMP 1, Solute carrier family 11 member 1, SLC11A1, LSH, NRAMP, NRAMP1

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP8514c was selected from the Center region of human SLC11A1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

SLC11A1 Antibody (Center) Blocking Peptide - Protein Information

Name SLC11A1 (HGNC:10907)

Function
Macrophage-specific antiporter that fluxes metal ions in either direction against a proton gradient. Localized to late endosomal lysosomal membranes, delivers bivalent cations from the cytosol into these acidic compartments where they may directly affect antimicrobial activity (PubMed:11237855). Involved in iron metabolism and host natural resistance to infection with intracellular parasites. Pathogen resistance involves sequestration of Fe(2+) and Mn(2+), cofactors of both prokaryotic and eukaryotic catalases and superoxide dismutases, not only to protect the macrophage against its own generation of reactive oxygen species, but to deny the cations to the pathogen for synthesis of its protective enzymes (Probable).

Cellular Location

Late endosome membrane; Multi-pass membrane protein. Lysosome membrane; Multi- pass membrane protein

Tissue Location
Macrophages; peripheral blood leukocytes, lung, spleen and liver.

SLC11A1 Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

SLC11A1 Antibody (Center) Blocking Peptide - Images

SLC11A1 Antibody (Center) Blocking Peptide - Background

NRAMP1, also known as SLC11A1, is a member of the solute carrier family 11 (proton-coupled divalent metal ion transporters) family and encodes a multi-pass membrane protein. The protein functions as a divalent transition metal (iron and manganese) transporter involved in iron metabolism and host resistance to certain pathogens. Mutations in this gene have been associated with susceptibility to infectious diseases such as leprosy and tuberculosis, and inflammatory diseases such as Crohn disease and rheumatoid arthritis. Alternatively spliced variants that encode different protein isoforms have been described but the full-length nature of only one has been determined.

SLC11A1 Antibody (Center) Blocking Peptide - References

Jin,J., et.al., Zhongguo Dang Dai Er Ke Za Zhi 11 (4), 283-287 (2009)Liu,J., et.al., Am. J. Hum. Genet. 56 (4), 845-853 (1995)