10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

NHEDC2 Antibody (C-term) Blocking Peptide
Synthetic peptide
Catalog # BP17738b

Specification

NHEDC2 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q86UD5

NHEDC2 Antibody (C-term) Blocking Peptide - Additional Information

Gene ID 133308

Other Names
Mitochondrial sodium/hydrogen exchanger 9B2, Mitochondrial Na(+)/H(+) exchanger NHA2, Na(+)/H(+) exchanger-like domain-containing protein 2, NHE domain-containing protein 2, Sodium/hydrogen exchanger-like domain-containing protein 2, Solute carrier family 9 subfamily B member 2, SLC9B2, NHA2, NHEDC2

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.

NHEDC2 Antibody (C-term) Blocking Peptide - Protein Information

Name SLC9B2 (HGNC:25143)

Synonyms NHA2, NHEDC2

Function
Electroneutral Na(+) Li(+)/H(+) antiporter that extrudes Na(+) or Li(+) in exchange for external protons across the membrane (PubMed:18000046, PubMed:18508966, PubMed:22948142, PubMed:28154142, PubMed:36177733). Uses the proton gradient/membrane potential to extrude sodium (PubMed:22948142). Contributes to the regulation of intracellular pH and sodium homeostasis (By similarity). Also able to mediate Na(+)/Li(+) antiporter activity in kidney (PubMed:22948142). May play a physiological role in renal tubular function and blood pressure homeostasis (By similarity). Plays an important role for insulin secretion and clathrin-mediated endocytosis in

beta-cells (By similarity). Involved in sperm motility and fertility (By similarity). It is controversial whether SLC9B2 plays a role in osteoclast differentiation or not (By similarity).

Cellular Location
Cell membrane; Multi-pass membrane protein {ECO:0000250|UniProtKB:A0A6P3HVI0}. Mitochondrion membrane {ECO:0000250|UniProtKB:Q5BKR2}; Multi-pass membrane protein {ECO:0000250|UniProtKB:A0A6P3HVI0}. Endosome membrane {ECO:0000250|UniProtKB:Q5BKR2}; Multi-pass membrane protein {ECO:0000250|UniProtKB:A0A6P3HVI0}. Recycling endosome membrane {ECO:0000250|UniProtKB:Q5BKR2}; Multi-pass membrane protein {ECO:0000250|UniProtKB:A0A6P3HVI0}. Cytoplasmic vesicle, secretory vesicle, synaptic vesicle membrane {ECO:0000250|UniProtKB:Q5BKR2}; Multi-pass membrane protein {ECO:0000250|UniProtKB:A0A6P3HVI0}. Cell projection, cilium, flagellum membrane {ECO:0000250|UniProtKB:Q5BKR2}; Multi-pass membrane protein {ECO:0000250|UniProtKB:A0A6P3HVI0} Basolateral cell membrane {ECO:0000250|UniProtKB:Q5BKR2}; Multi-pass membrane protein {ECO:0000250|UniProtKB:A0A6P3HVI0}. Apical cell membrane {ECO:0000250|UniProtKB:Q5BKR2}; Multi-pass membrane protein {ECO:0000250|UniProtKB:A0A6P3HVI0}. Note=Strong colocalization with LAMP1 and TCIRG1 in osteoclasts. In beta-cells colocalizes with RAB4A and SYP. Localizes to the basolateral membrane of polarized osteoclasts. {ECO:0000250|UniProtKB:Q5BKR2}

Tissue Location
Widely expressed (PubMed:18508966). High levels detected in the distal tubules of the kidney nephron (PubMed:18508966) Detected in red blood cells (at protein level) (PubMed:18000046, PubMed:18508966).

NHEDC2 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides

NHEDC2 Antibody (C-term) Blocking Peptide - Images

NHEDC2 Antibody (C-term) Blocking Peptide - Background

Sodium hydrogen antiporters, such as NHEDC2, convert theproton motive force established by the respiratory chain or theF1F0 mitochondrial ATPase into sodium gradients that drive otherenergy-requiring processes, transduce environmental signals intocell responses, or function in drug efflux (Xiang et al., 2007[PubMed 18000046]).

NHEDC2 Antibody (C-term) Blocking Peptide - References

Kalsi, G., et al. Hum. Mol. Genet. 19(12):2497-2506(2010)Schushan, M., et al. J. Mol. Biol. 396(5):1181-1196(2010)Fuster, D.G., et al. J. Am. Soc. Nephrol. 19(8):1547-1556(2008)Battaglino, R.A., et al. Bone 42(1):180-192(2008)Xiang, M., et al. Proc. Natl. Acad. Sci. U.S.A. 104(47):18677-18681(2007)