

Product Information

MemDX™ Membrane Protein Human SLC8A1 (Solute carrier family 8 member A1) Full

Length

Cat. No.: **MPC0914K**

This product is for research use only and is not intended for diagnostic use.

This product is a 108.5 kDa Human SLC8A1 membrane protein expressed in HEK293. The protein is for research use only and is not approved for use in humans or in clinical diagnosis.

Product Specifications

Host Species

Human

Target Protein

SLC8A1

Protein Length

Full length

Protein Class

Transporter

Molecular Weight

108.5 kDa

TMD

10

Sequence

MYNMRRLSLSPTFSMGFHLLVTVSLLFSHVDHVIAETEMEGEGNETGECT
GSYYCKKGVILPIWEPQDPSFGDKIARATVYFVAMVYMFLGVSIIADRFM
SSIEVITSQEKEITIKKPNGETTKTTVRIWNETVSNLTLMALGSSAPEIL
LSVIEVCGHNFTAGDLGPSTIVGSAAFNMFIIALCVYVVPDGETRRIKH
LRVFFVTAAWSIFAYTWLYIILSVISPGVVEVWEGLLTFFFFPICVFFAW
VADRLLFYKYVYKRYRAGKQGRGMIEHEGDRPSSKTEIEMDGKVVNSHV
ENFLDGLVLEVDERDQDDEEARREMARILKELKQKHPDKEIEQLIELAN
YQVLSQQQKSRAFYRIQATRLMTGAGNILKRHAADQARKAVSMHEVNTEV
TENDPVSKIFFEQGTYYQCLNCGTVALTIIRRGDLTNTVFVDFRTEDGT
ANAGSDYEFTEGTVVFKPGDTQKEIRVGIIDDDIFEEDENFLVHLSNVKV
SSEASEDGILEANHVSTLACLGSPSTATVTIFDDDHAGIFTFEPPVTHVS
ESIGIMEVKVLRVTSARGNVIVPYKTIEGTARGGGEDFEDTCGELEFQND
EIVKTISVKVIDDEEYEKNKTFLEIGEPRLVEMSEKKALLLNELGGFTI
TGKYLFGQPVFRKVHAREHPILSTVITIADEYDDKQPLTSKEEEERRIAE
MGRPILGEHTKLEVIIIESEYEFKSTVDKLIKKTNLALVVGTSNSWREQFIE
AITVSAGEDDDDDDECGEELPSCFDYVMHFLTVMFKVLFVFPPTTEYWNG
WACFIVSILMIGLLTAFIGDLASHFGCTIGLKDSVTAVVVALGTSVPDT
FASKVAATQDQYADASIGNVTGSNAVNVFLGIGVAWSIAAIYHAANGEQF
KVSPGTLAFSVTLFTIFAFINVGVLVYRRRPEIGGELGGPRTAKLLTSCL

Product Description

Expression Systems

HEK293

Tag

Based on specific requirements

Protein Format

Detergent or based on specific requirements

Form

Liquid

Storage

Aliquot and store at -20°C or lower. For long term storage, we recommend to store at -72°C or lower. Avoid freeze/thaw cycles.

Target

Target Protein

SLC8A1

Full Name

Solute carrier family 8 member A1

Introduction

In cardiac myocytes, Ca^{2+} concentrations alternate between high levels during contraction and low levels during relaxation. The increase in Ca^{2+} concentration during contraction is primarily due to release of Ca^{2+} from intracellular stores. However, some Ca^{2+} also enters the cell through the sarcolemma (plasma membrane). During relaxation, Ca^{2+} is sequestered within the intracellular stores. To prevent overloading of intracellular stores, the Ca^{2+} that entered across the sarcolemma must be extruded from the cell. The Na^{+} - Ca^{2+} exchanger is the primary mechanism by which the Ca^{2+} is extruded from the cell during relaxation. In the heart, the exchanger may play a key role in digitalis action. The exchanger is the dominant mechanism in returning the cardiac myocyte to its resting state following excitation.

Alternative Names

NCX1; sodium/calcium exchanger 1; $\text{Na}^{+}/\text{Ca}^{2+}$ -exchange protein 1; $\text{Na}^{+}/\text{Ca}^{++}$ exchanger; $\text{Na}^{+}/\text{Ca}^{2+}$ exchanger; solute carrier family 8 (sodium/calcium exchanger), member 1; solute carrier family 8 member 1; SLC8A1; Solute carrier family 8 member A1

Gene ID

[6546](#)

UniProt ID

[P32418](#)