

## Rabbit SLC8A1 Polyclonal Antibody | anti-SLC8A1 antibody

SLC8A1 Antibody (Center)

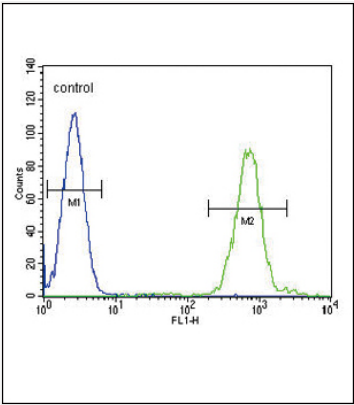
| CATALOG # | HOST   | REACTIVITY                                        | APPLICATIONS                                                                |
|-----------|--------|---------------------------------------------------|-----------------------------------------------------------------------------|
| AAA290286 | Rabbit | Human, mouse<br>Predicted Reactivity: Bovine, Rat | Flow Cytometry, Functional Assay, Immunohistochemistry, ELISA, Western Blot |

### PRODUCT SYNONYMS

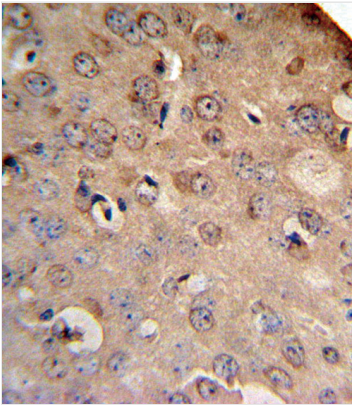
SLC8A1; Polyclonal Antibody; SLC8A1 Antibody (Center); Sodium/calcium exchanger 1; Na(+)/Ca(2+)-exchange protein 1; Solute carrier family 8 member 1; CNC; NCX1; anti-SLC8A1 antibody

### PRODUCT SPECIFICATIONS

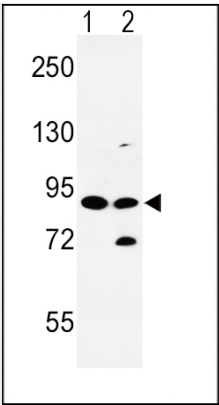
|                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                             | Rabbit                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Reactivity                                       | Human, mouse<br>Predicted Reactivity: Bovine, Rat                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Clonality                                        | Polyclonal                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Isotype                                          | Rabbit Ig                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| Specificity                                      | This SLC8A1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 296-325 amino acids from the Central region of human SLC8A1.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Purity/Purification                              | Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Form/Format                                      | Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| Sequence Positions                               | 296-325                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| Sequence Length                                  | 968                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
| Applicable Applications for anti-SLC8A1 antibody | FCM/FACS (Flow Cytometry), IHC (Immunohistochemistry), ELISA, WB (Western Blot)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Antigen Type                                     | Synthetic Peptide                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| Function                                         | Mediates the exchange of one Ca(2+) ion against three to four Na(+) ions across the cell membrane, and thereby contributes to the regulation of cytoplasmic Ca(2+) levels and Ca(2+)-dependent cellular processes (PubMed: , PubMed: ,PubMed: ). Contributes to Ca(2+) transport during excitation-contraction coupling in muscle. In a first phase, voltage-gated channels mediate the rapid increase of cytoplasmic Ca(2+) levels due to release of Ca(2+) stores from the endoplasmic reticulum. SLC8A1 mediates the export of Ca(2+) from the cell during the next phase, so that cytoplasmic Ca(2+) levels rapidly return to baseline. Required for normal embryonic heart development and the onset of heart contractions. |
| Cellular Location                                | Cell membrane; Multi-pass membrane protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Tissue Location                                  | Detected primarily in heart and at lower levels in brain (PubMed:1374913). Expressed in cardiac sarcolemma, brain, kidney, liver, pancreas, skeletal muscle, placenta and lung (PubMed:1476165)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| Antigen Source                                   | HUMAN                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| Preparation and Storage                          | Maintain refrigerated at 2-8°C. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |



**FCM/FACS (Flow Cytometry)**  
SLC8A1 Antibody (Center) flow cytometric analysis of HL-60 cells (right histogram) compared to a negative control cell (left histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.



**IHC (Immunohistochemistry)**  
SLC8A1 Antibody (Center) IHC analysis in formalin fixed and paraffin embedded mouse brain followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of the SLC8A1 Antibody (Center) for immunohistochemistry. Clinical relevance has not been evaluated.



**WB (Western Blot)**  
Western blot analysis of SLC8A1 Antibody (Center) in HL-60 (lane 1), K562 (lane 2) cell line lysates (35ug/lane). SLC8A1 (arrow) was detected using the purified Pab.

ADDITIONAL INFORMATION

|                                                             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|-------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Related Product Information for anti-SLC8A1 antibody</b> | In cardiac myocytes, Ca(2+) concentrations alternate between high levels during contraction and low levels during relaxation. The increase in Ca(2+) centration 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. |
| <b>Product Categories/Family for anti-SLC8A1 antibody</b>   | Cancer; Cardiovascular; Metabolism; Signal transduction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>References</b>                                           | Palty,R., et.al., Proc. Natl. Acad. Sci. U.S.A. 107 (1), 436-441 (2010) Kepp,K., et.al., BMC Med. Genet. 11, 15 (2010)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

NCBI AND UNIPROT INFORMATION

|                         |                                                                             |
|-------------------------|-----------------------------------------------------------------------------|
| <b>NCBI GI #</b>        | 163914369                                                                   |
| <b>NCBI GeneID</b>      | 6546                                                                        |
| <b>NCBI Accession #</b> | NP_001106271.1; NP_001106272.1; NP_001106273.1; NP_001239553.1; NP_066920.1 |

|                                  |                                                                                                |
|----------------------------------|------------------------------------------------------------------------------------------------|
| NCBI GenBank Nucleotide #        | NM_001112800.1                                                                                 |
| UniProt Accession #              | P32418; O95849; Q4QQG6; Q587I6; Q59GN4; Q9UBL8; Q9UD55; Q9UDN1; Q9UDN2; Q9UKX6; A8K6N1; D6W595 |
| Molecular Weight                 | 108547                                                                                         |
| NCBI Official Full Name          | sodium/calcium exchanger 1 isoform B                                                           |
| NCBI Official Synonym Full Names | solute carrier family 8 (sodium/calcium exchanger), member 1                                   |
| NCBI Official Symbol             | SLC8A1                                                                                         |
| NCBI Official Synonym Symbols    | NCX1                                                                                           |
| NCBI Protein Information         | sodium/calcium exchanger 1                                                                     |
| UniProt Protein Name             | Sodium/calcium exchanger 1                                                                     |
| UniProt Gene Name                | <b>SLC8A1</b>                                                                                  |
| UniProt Synonym Gene Names       | CNC; NCX1                                                                                      |
| UniProt Entry Name               | NAC1_HUMAN                                                                                     |

**For Research Use Only.** Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | [contact@aaabiotech.com](mailto:contact@aaabiotech.com)  
Online datasheet: <https://stage.aaabiotech.com/polyclonal/slc8a1-antibody-flow-cytometry-immunohistochemistry-western-blot-elisa/290286>