

**SLC8A3 Antibody (C-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP12808b**

**Specification**

**SLC8A3 Antibody (C-term) - Product Information**

Application	<b>WB, IHC-P,E</b>
Primary Accession	<a href="#">P57103</a>
Other Accession	<a href="#">NP_892114.1</a>
Reactivity	<b>Human</b>
Host	<b>Rabbit</b>
Clonality	<b>Polyclonal</b>
Isotype	<b>Rabbit IgG</b>
Antigen Region	<b>585-614</b>

**SLC8A3 Antibody (C-term) - Additional Information**

**Gene ID** 6547

**Other Names**

Sodium/calcium exchanger 3,  
Na(+)/Ca(2+)-exchange protein 3, Solute  
carrier family 8 member 3, SLC8A3, NCX3

**Target/Specificity**

This SLC8A3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 585-614 amino acids of human SLC8A3.

**Dilution**

WB~~1:1000  
IHC-P~~1:10~50

**Format**

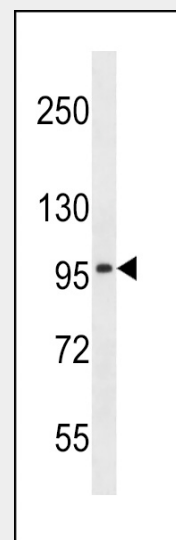
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

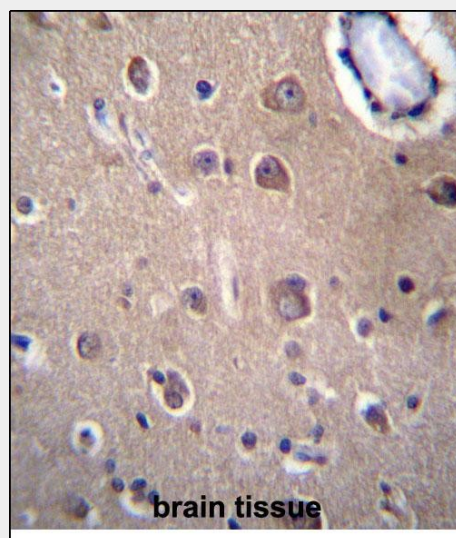
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

SLC8A3 Antibody (C-term) is for research use only and not for use in diagnostic or



SLC8A3 Antibody (C-term) (Cat. #AP12808b) western blot analysis in NCI-H460 cell line lysates (35ug/lane). This demonstrates the SLC8A3 antibody detected the SLC8A3 protein (arrow).



SLC8A3 Antibdy (C-term) (Cat. #AP12808b) immunohistochemistry analysis in formalin fixed and paraffin embedded human brain tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use

therapeutic procedures.

#### SLC8A3 Antibody (C-term) - Protein Information

**Name** SLC8A3

**Synonyms** NCX3

#### Function

Mediates the electrogenic exchange of Ca(2+) against Na(+) ions across the cell membrane, and thereby contributes to the regulation of cytoplasmic Ca(2+) levels and Ca(2+)-dependent cellular processes. Contributes to cellular Ca(2+) homeostasis in excitable cells, both in muscle and in brain. 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. SLC8A3 mediates the export of Ca(2+) from the cell during the next phase, so that cytoplasmic Ca(2+) levels rapidly return to baseline. Contributes to Ca(2+) transport during excitation-contraction coupling in muscle. In neurons, contributes to the rapid decrease of cytoplasmic Ca(2+) levels back to baseline after neuronal activation, and thereby contributes to modulate synaptic plasticity, learning and memory (By similarity). Required for normal oligodendrocyte differentiation and for normal myelination (PubMed:<a href="http://www.uniprot.org/citations/21959935" target="\_blank">21959935</a>). Mediates Ca(2+) efflux from mitochondria and contributes to mitochondrial Ca(2+) ion homeostasis (By similarity).

#### Cellular Location

Cell membrane; Multi-pass membrane protein. Perikaryon {ECO:0000250|UniProtKB:P70549}. Cell projection, dendrite {ECO:0000250|UniProtKB:P70549}. Cell projection, dendritic spine {ECO:0000250|UniProtKB:P70549}. Cell membrane, sarcolemma {ECO:0000250|UniProtKB:S4R2P9}. Cytoplasm, sarcoplasm {ECO:0000250|UniProtKB:S4R2P9}. Cell junction {ECO:0000250|UniProtKB:S4R2P9}. Mitochondrion outer membrane {ECO:0000250|UniProtKB:S4R2P9}; Multi-pass membrane protein

of SLC8A3 Antibdy (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

#### SLC8A3 Antibody (C-term) - Background

This gene encodes a member of the sodium/calcium exchanger integral membrane protein family. Three mammalian isoforms in family 8 have been identified. Na<sup>+</sup>/Ca<sup>2+</sup> exchange proteins are involved in maintaining Ca<sup>2+</sup> homeostasis in a wide variety of cell types. The protein is regulated by intracellular calcium ions and is found in both the plasma membrane and intracellular organellar membranes, where exchange of Na<sup>+</sup> for Ca<sup>2+</sup> occurs in an electrogenic manner. Alternative splicing has been observed for this gene and multiple variants have been described.

#### SLC8A3 Antibody (C-term) - References

Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :  
Pulina, M.V., et al. J. Biol. Chem. 281(28):19645-19654(2006)  
Gomez-Villafuertes, R., et al. J. Neurosci. 25(47):10822-10830(2005)  
Lindgren, R.M., et al. Gene 348, 143-155 (2005) :  
Gabellini, N. Mol. Neurobiol. 30(1):91-116(2004)

{ECO:0000250|UniProtKB:S4R2P9}.  
Cytoplasm, perinuclear region. Endoplasmic  
reticulum membrane; Multi-pass membrane  
protein {ECO:0000250|UniProtKB:S4R2P9}.  
Note=Detected at neuromuscular junctions.  
{ECO:0000250|UniProtKB:S4R2P9}

**Tissue Location**

Isoform 2 is expressed in brain and skeletal  
muscle. Isoform 3 is expressed in excitable  
cells of brain, retina and skeletal muscle.  
Isoform 4 is expressed in skeletal muscle

**SLC8A3 Antibody (C-term) - 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](#)

**SLC8A3 Antibody (C-term) - Citations**

- [Na Exchange and Pacemaker Activity of Interstitial Cells of Cajal](#)