

SLC5A3 / SMIT2 Antibody (aa221-270)
Rabbit Polyclonal Antibody
Catalog # ALS13668**Specification**

SLC5A3 / SMIT2 Antibody (aa221-270) - Product Information

Application	WB, IHC
Primary Accession	P53794
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal

SLC5A3 / SMIT2 Antibody (aa221-270) - Additional Information**Gene ID** 6526**Other Names**

Sodium/myo-inositol cotransporter, Na(+)/myo-inositol cotransporter, Sodium/myo-inositol transporter 1, SMIT1, Solute carrier family 5 member 3, SLC5A3

Target/Specificity

SLC5A3 Antibody detects endogenous levels of total SLC5A3 protein.

Reconstitution & Storage

Store at -20°C for up to one year.

Precautions

SLC5A3 / SMIT2 Antibody (aa221-270) is for research use only and not for use in diagnostic or therapeutic procedures.

SLC5A3 / SMIT2 Antibody (aa221-270) - Protein Information**Name** SLC5A3 ([HGNC:11038](#))**Function**

Electrogenic Na(+)-coupled sugar symporter that actively transports myo-inositol and its stereoisomer scyllo-inositol across the plasma membrane, with a Na(+) to sugar coupling ratio of 2:1 (By similarity). Maintains myo-inositol concentration gradient that defines cell volume and fluid balance during osmotic stress, in particular in the fetoplacental unit and central nervous system (By similarity). Forms coregulatory complexes with voltage-gated K(+) ion channels, allosterically altering ion selectivity, voltage dependence and gating kinetics of the channel. In turn, K(+) efflux through the channel forms a local electrical gradient that modulates electrogenic Na(+)-coupled myo-inositol influx through the transporter (PubMed:24595108, PubMed:28793216). Associates with KCNQ1-KCNE2 channel in the apical membrane of choroid plexus epithelium and regulates the myo-inositol gradient between blood and cerebrospinal fluid with an impact on neuron excitability (PubMed:<a href="http://www.uniprot.org/citations/24595108"

target="_blank">24595108) (By similarity). Associates with KCNQ2- KCNQ3 channel altering ion selectivity, increasing Na(+) and Cs(+) permeation relative to K(+) permeation (PubMed:28793216). Provides myo- inositol precursor for biosynthesis of phosphoinositides such as PI(4,5)P2, thus indirectly affecting the activity of phosphoinositide- dependent ion channels and Ca(2+) signaling upon osmotic stress (PubMed:27217553).

Cellular Location

Apical cell membrane {ECO:0000250|UniProtKB:Q9JKZ2}; Multi-pass membrane protein.
Basolateral cell membrane {ECO:0000250|UniProtKB:Q9JKZ2}; Multi-pass membrane protein.
Note=Colocalizes with KCNQ1 at the apical membrane of choroid plexus epithelium.
{ECO:0000250|UniProtKB:Q9JKZ2}

Volume

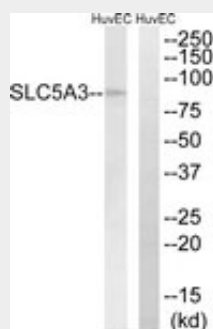
50 µl

SLC5A3 / SMIT2 Antibody (aa221-270) - Protocols

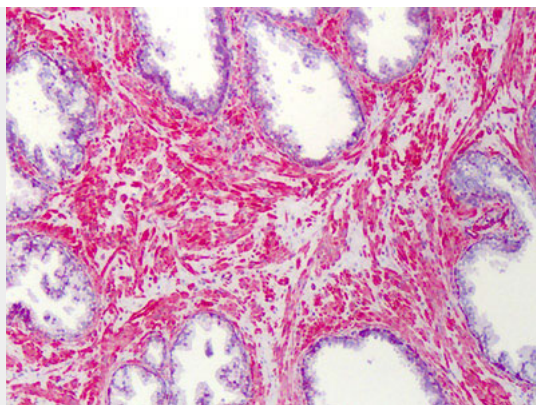
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

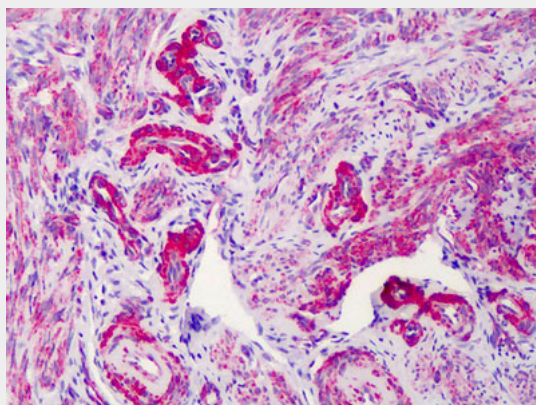
SLC5A3 / SMIT2 Antibody (aa221-270) - Images



Western blot of extracts from HUVEC cells, using SLC5A3 Antibody.



Anti-SLC5A3 antibody IHC of human prostate.



Anti-SLC5A3 antibody IHC of human uterus.