

Catalog # ALS17304

Anti-LRRC8A / LRRC8 Antibody (N-Terminus) Rabbit Anti Human Polyclonal Antibody

## Specification

# Anti-LRRC8A / LRRC8 Antibody (N-Terminus) - Product Information

Application Primary Accession Predicted Host Clonality Isotype Calculated MW IHC-P <u>Q8IWT6</u> Human, Mouse, Rat Rabbit Polyclonal IgG 94199

#### Anti-LRRC8A / LRRC8 Antibody (N-Terminus) - Additional Information

Gene ID 56262

Alias Symbol **Other Names** LRRC8A, AGM5, LRRC8, KIAA1437 LRRC8A

Target/Specificity LRRC8A antibody is human, mouse and rat reactive.

**Reconstitution & Storage** 

PBS, 0.02% sodium azide. Store at 4°C for three months and -20°C, stable for up to one year. Avoid repeated freeze thaw cycles.

**Precautions** Anti-LRRC8A / LRRC8 Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

## Anti-LRRC8A / LRRC8 Antibody (N-Terminus) - Protein Information

Name LRRC8A {ECO:0000303|PubMed:22532330, ECO:0000312|HGNC:HGNC:19027}

Function

Essential component of the volume-regulated anion channel (VRAC, also named VSOAC channel), an anion channel required to maintain a constant cell volume in response to extracellular or intracellular osmotic changes (PubMed:<a href="http://www.uniprot.org/citations/24725410" target="\_blank">24725410</a>, PubMed:<a href="http://www.uniprot.org/citations/29769723" target="\_blank">29769723</a>, PubMed:<a href="http://www.uniprot.org/citations/24790029" target="\_blank">24790029</a>, PubMed:<a href="http://www.uniprot.org/citations/26530471" target="\_blank">26530471</a>, PubMed:<a href="http://www.uniprot.org/citations/26530471" target="\_blank">26530471</a>, PubMed:<a href="http://www.uniprot.org/citations/26824658" target="\_blank">26824658</a>, PubMed:<a href="http://www.uniprot.org/citations/26824658" target="\_blank">26824658</a>, PubMed:<a href="http://www.uniprot.org/citations/28193731" target="\_blank">28193731</a>). The VRAC channel conducts iodide better than chloride and can also conduct organic osmolytes like taurine (PubMed:<a



href="http://www.uniprot.org/citations/24725410" target=" blank">24725410</a>, PubMed:<a href="http://www.uniprot.org/citations/30095067" target=" blank">30095067</a>, PubMed:<a href="http://www.uniprot.org/citations/24790029" target="\_blank">24790029</a>, PubMed:<a href="http://www.uniprot.org/citations/26530471" target="\_blank">26530471</a>, PubMed:<a href="http://www.uniprot.org/citations/26824658" target=" blank">26824658</a>, PubMed:<a href="http://www.uniprot.org/citations/28193731" target=" blank">28193731</a>). Mediates efflux of amino acids, such as aspartate and glutamate, in response to osmotic stress (PubMed:<a href="http://www.uniprot.org/citations/28193731" target=" blank">28193731</a>). LRRC8A and LRRC8D are required for the uptake of the drug cisplatin (PubMed:<a href="http://www.uniprot.org/citations/26530471" target="\_blank">26530471</a>). In complex with LRRC8C or LRRC8E, acts as a transporter of immunoreactive cyclic dinucleotide GMP-AMP (2'-3'-cGAMP), an immune messenger produced in response to DNA virus in the cytosol: mediates both import and export of 2'-3'-cGAMP, thereby promoting transfer of 2'-3'-cGAMP to bystander cells (PubMed:<a href="http://www.uniprot.org/citations/33171122" target=" blank">33171122</a>). In contrast, complexes containing LRRC8D inhibit transport of 2'-3'-cGAMP (PubMed:<a href="http://www.uniprot.org/citations/33171122" target=" blank">33171122</a>). Required for in vivo channel activity, together with at least one other family member (LRRC8B, LRRC8C, LRRC8D or LRRC8E); channel characteristics depend on the precise subunit composition (PubMed:<a href="http://www.uniprot.org/citations/24790029" target=" blank">24790029</a>, PubMed:<a href="http://www.uniprot.org/citations/26824658" target=" blank">26824658</a>, PubMed:<a href="http://www.uniprot.org/citations/28193731" target=" blank">28193731</a>). Can form functional channels by itself (in vitro) (PubMed:<a href="http://www.uniprot.org/citations/26824658" target=" blank">26824658</a>). Involved in B-cell development: required for the pro-B cell to pre-B cell transition (PubMed:<a href="http://www.uniprot.org/citations/14660746" target="\_blank">14660746</a>). Also required for T-cell development (By similarity). Required for myoblast differentiation: VRAC activity promotes membrane hyperpolarization and regulates insulin-stimulated glucose metabolism and oxygen consumption (By similarity). Also acts as a regulator of glucose-sensing in pancreatic beta cells: VRAC currents, generated in response to hypotonicity- or glucose-induced beta cell swelling, depolarize cells, thereby causing electrical excitation, leading to increase glucose sensitivity and insulin secretion (PubMed:<a href="http://www.uniprot.org/citations/29371604" target=" blank">29371604</a>). Also plays a role in lysosome homeostasis by forming functional lysosomal VRAC channels in response to low cytoplasmic ionic strength condition: lysosomal VRAC channels are necessary for the formation of large lysosome-derived vacuoles, which store and then expel excess water to maintain cytosolic water homeostasis (PubMed:<a href="http://www.uniprot.org/citations/31270356" target=" blank">31270356</a>, PubMed:<a href="http://www.uniprot.org/citations/33139539" target=" blank">33139539</a>).

#### **Cellular Location**

Cell membrane; Multi-pass membrane protein. Lysosome membrane; Multi-pass membrane protein. Note=Mainly localizes to the cell membrane, with some intracellular localization to lysosomes

#### **Tissue Location**

Expressed in brain, kidney, ovary, lung, liver, heart, and fetal brain and liver. Found at high levels in bone marrow; lower levels are detected in peripheral blood cells. Expressed on T- cells as well as on B-lineage cells.

## Anti-LRRC8A / LRRC8 Antibody (N-Terminus) - Protocols

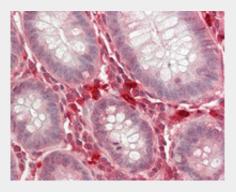
Provided below are standard protocols that you may find useful for product applications.

- <u>Western Blot</u>
- <u>Blocking Peptides</u>
- Dot Blot



- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- <u>Cell Culture</u>

Anti-LRRC8A / LRRC8 Antibody (N-Terminus) - Images



Human Colon: Formalin-Fixed, Paraffin-Embedded (FFPE)