

Anti-LRRC8A / LRRC8 Antibody (N-Terminus)

Rabbit Anti Human Polyclonal Antibody Catalog # ALS17304

Specification

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

Application IHC-P Primary Accession OSIWT6

Predicted Human, Mouse, Rat

Host Rabbit Clonality Polyclonal

Isotype IgG Calculated MW 94199

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

Gene ID 56262

Alias Symbol LRRC8A

Other Names

LRRC8A, AGM5, LRRC8, KIAA1437

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:24725410, PubMed:29769723, PubMed:24790029, PubMed:26530471, PubMed:26824658, PubMed:28193731, 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, PubMed:30095067, PubMed:24790029, PubMed:26530471, PubMed:26824658, PubMed:28193731). Mediates efflux of amino acids, such as aspartate and glutamate, in response to osmotic stress (PubMed:28193731). LRRC8A and LRRC8D are required for the uptake of the drug cisplatin (PubMed: <a $href="http://www.uniprot.org/citations/26530471"\ target="_blank">26530471).\ In complex$ 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:33171122). In contrast, complexes containing LRRC8D inhibit transport of 2'-3'-cGAMP (PubMed: 33171122). 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:24790029, PubMed:26824658, PubMed:28193731). Can form functional channels by itself (in vitro) (PubMed:26824658). Involved in B-cell development: required for the pro-B cell to pre-B cell transition (PubMed:14660746). 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: 29371604). 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: 31270356, PubMed:33139539).

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

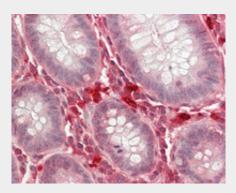
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot



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

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



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