10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

LRRC8D Polyclonal Antibody

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP57073

Product Information

Application	IHC-P, IHC-F, IF, ICC, E
Primary Accession	Q7L1W4
Reactivity	Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	98201
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human LRRC8D
Epitope Specificity	44-153/858
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell membrane; Multi-pass membrane protein. Endoplasmic reticulum membrane; Multi-pass membrane protein. Note=Mainly localizes in the endoplasmic reticulum
SIMILARITY	Belongs to the LRRC8 family.Contains 13 LRR (leucine-rich) repeats.
SUBUNIT	Heterooligomer; heterooligomerizes with other LRRC8 proteins (LRRC8A, LRRC8B, LRRC8C and/or LRRC8E), possibly to form a heterohexamer.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	LRRC8D contains 12 LRR (leucine-rich) repeats. The function of this protein is unknown.

Additional Information

Gene ID	55144
Other Names	Volume-regulated anion channel subunit LRRC8D, Leucine-rich repeat-containing protein 5 {ECO:0000312|HGNC:HGNC:16992}, Leucine-rich repeat-containing protein 8D, HsLRRC8D, LRRC8D {ECO:0000303|PubMed:22532330, ECO:0000312|HGNC:HGNC:16992}
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,ICC=1:100-500,IF=1:100-500,ELISA=1:5000-10000
Format	0.01M TBS(pH7.4) with 1% BSA, 0.09% (W/V) sodium azide and 50% Glyce
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	LRRC8D {ECO:0000303|PubMed:22532330, ECO:0000312|HGNC:HGNC:16992}
Function	Non-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:24790029, PubMed:26530471, PubMed:26824658, PubMed:28193731, PubMed:32415200). The VRAC channel conducts iodide better than chloride and can also conduct organic osmolytes like taurine (PubMed:24790029, PubMed:26824658, PubMed:28193731). Plays a redundant role in the efflux of amino acids, such as aspartate, in response to osmotic stress (PubMed:28193731). LRRC8A and LRRC8D are required for the uptake of the drug cisplatin (PubMed:26530471). Channel activity requires LRRC8A plus at least one other family member (LRRC8B, LRRC8C, LRRC8D or LRRC8E); channel characteristics depend on the precise subunit composition (PubMed:24782309, PubMed:24790029, PubMed:26824658, PubMed:28193731). 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 (By similarity). VRAC channels containing LRRC8D inhibit transport of immunoreactive cyclic dinucleotide GMP-AMP (2'-3'-cGAMP), an immune messenger produced in response to DNA virus in the cytosol (PubMed:33171122). Mediates the import of the antibiotic blasticidin-S into the cell (PubMed:24782309).
Cellular Location	Cell membrane; Multi-pass membrane protein. Endoplasmic reticulum membrane; Multi-pass membrane protein. Note=In the absence of LRRC8A, resides primarily in a cytoplasmic compartment, probably the endoplasmic reticulum (PubMed:24782309, PubMed:24790029) Requires LRRC8A for expression at the cell membrane (PubMed:24790029)