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Scramblase 1 Rabbit mAb

Catalog # AP78228

Product Information

Application	WB, IF, FC, ICC, IP
Primary Accession	O15162
Reactivity	Human
Host	Rabbit
Clonality	Monoclonal Antibody
Isotype	IgG
Conjugate	Unconjugated
Immunogen	A synthesized peptide derived from human Scramblase 1
Purification	Affinity Purified
Calculated MW	35049

Additional Information

Gene ID	5359
Other Names	PLSCR1
Dilution	WB~~1/500-1/1000 IF~~1:50~200 FC~~1:10~50 ICC~~N/A IP~~N/A
Format	Liquid in 10mM PBS, pH 7.4, 150mM sodium chloride, 0.05% BSA, 0.02% sodium azide and 50% glycerol.
Storage	Store at 4°C short term. Aliquot and store at -20°C long term. Avoid freeze/thaw cycles.

Protein Information

Name	PLSCR1
Function	Catalyzes calcium-induced ATP-independent rapid bidirectional and non-specific movement of phospholipids (lipid scrambling or lipid flip-flop) between the inner and outer leaflet of the plasma membrane resulting in collapse of the phospholipid asymmetry which leads to phosphatidylserine externalization on the cell surface (PubMed:10770950, PubMed:18629440, PubMed:23590222, PubMed:23659204, PubMed:24343571, PubMed:24648509, PubMed:29748552, PubMed:32110987, PubMed:8663431, PubMed:9218461, PubMed:9485382, PubMed:9572851). Mediates calcium-dependent phosphatidylserine externalization and apoptosis in neurons via its association with TRPC5 (By similarity). Also exhibits magnesium-dependent nuclease activity against double- stranded DNA and RNA but not single-stranded DNA and can enhance DNA decatenation mediated by TOP2A (PubMed:17567603, PubMed:27206388). Negatively regulates FcR-mediated phagocytosis in differentiated macrophages

(PubMed:26745724). May contribute to cytokine-regulated cell proliferation and differentiation (By similarity). May play a role in the antiviral response of interferon (IFN) by amplifying and enhancing the IFN response through increased expression of select subset of potent antiviral genes (PubMed:15308695). Inhibits the functions of viral transactivators, including human T-cell leukemia virus (HTLV)-1 protein Tax, human immunodeficiency virus (HIV)-1 Tat, human hepatitis B virus (HBV) HBx, Epstein-Barr virus (EBV) BZLF1 and human cytomegalovirus IE1 and IE2 proteins through direct interactions (PubMed:22789739, PubMed:23501106, PubMed:25365352, PubMed:31434743, PubMed:35138119). Also mediates the inhibition of influenza virus infection by preventing nuclear import of the viral nucleoprotein/NP (PubMed:29352288, PubMed:35595813). Plays a crucial role as a defense factor against SARS-CoV-2 independently of its scramblase activity by directly targeting nascent viral vesicles to prevent virus-membrane fusion and the release of viral RNA into the host-cell cytosol (PubMed:37438530).

Cellular Location

Cell membrane; Single-pass type II membrane protein. Cell membrane; Lipid-anchor; Cytoplasmic side. Nucleus. Cytoplasm. Cytoplasm, perinuclear region Note=Localizes to the perinuclear region in the presence of RELT (PubMed:22052202). Palmitoylation regulates its localization to the cell membrane or the nucleus; trafficking to the cell membrane is dependent upon palmitoylation whereas in the absence of palmitoylation, localizes to the nucleus (PubMed:12564925)

Tissue Location

Expressed in platelets, erythrocyte membranes, lymphocytes, spleen, thymus, prostate, testis, uterus, intestine, colon, heart, placenta, lung, liver, kidney and pancreas. Not detected in brain and skeletal muscle.

Images