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Scramblase 1 Antibody

Rabbit mAb
Catalog # AP92277

Product Information

Application	WB, IF, FC, ICC, IP
Primary Accession	O15162
Reactivity	Human
Clonality	Monoclonal
Other Names	MmTRA1a; MmTRA1b; Nor1; PLSCR 1; Scramblase1; Tra1; Tra1a; Tra1b; Tras1; Tras2;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	35049

Additional Information

Dilution	WB 1:500~1:2000 ICC/IF 1:50~1:200 IP 1:50 FC 1:50
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human Scramblase 1
Description	May mediate accelerated ATP-independent bidirectional transbilayer migration of phospholipids upon binding calcium ions that results in a loss of phospholipid asymmetry in the plasma membrane. May play a central role in the initiation of fibrin clot formation, in the activation of mast cells and in the recognition of apoptotic and injured cells by the reticuloendothelial system.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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).

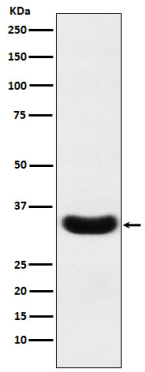
Cellular Location

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



Western blot analysis of Scramblase 1 expression in A431 cell lysate.

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