

Anti-Scramblase 1 Antibody

HA500063



Product Type:	Rabbit polyclonal IgG, primary antibodies
Species reactivity:	Human
Applications:	WB, IF-Cell, FC, IP
Molecular Wt:	Predicted band size: 35 kDa.

Description: Scramblase is a protein responsible for the translocation of phospholipids between the two monolayers of a lipid bilayer of a cell membrane. In humans, phospholipid scramblases (PLSCRs) constitute a family of five homologous proteins that are named as hPLSCR1–hPLSCR5. Phospholipid scramblase 1 (PLSCR1), a lipid-binding protein that enters the nucleus via the nonclassical NLS (257)GKISKHWTGI(266). The structure of the nuclear localisation sequence of scramblase PLSCR1 complexed to importin was determined using X-ray diffraction with a resolution of 2.20 Ångströms. It is found in most mammals including humans. The import sequence lacks a continuous stretch of positively charged residues, and it is enriched in hydrophobic residues. Thus, Scramblase can transport negatively charged phospholipids from the inside of the cell to the outside of the cell. The importin structure is composed of many alpha helices that integrate the protein into membranes. The role of importin is to move proteins such as scramblase into the nucleus.

Immunogen: Synthetic peptide within N-terminal human Scramblase 1.

Positive control: SK-MEL-28 cell lysate, HeLa cell lysate, THP-1 cell lysate, MDA-MB-231 cell lysate, HUVEC, SK-MEL-28.

Subcellular location: Cell membrane, Nucleus, Membrane, Cytoplasm, perinuclear region.

Database links: SwissProt: O15162 Human

Recommended Dilutions:

WB	1:1,000
IF-Cell	1:50-1:100
FC	1:1,000
IP	1-2µg/sample

Storage Buffer: 1*TBS (pH7.4), 0.2% BSA, 50% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Shipped at 4°C. Store at +4°C short term (1-2 weeks). It is recommended to aliquot into single-use upon delivery. Store at -20°C long term.

Purity: Immunogen affinity purified.

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Orders:0086-571-88062880

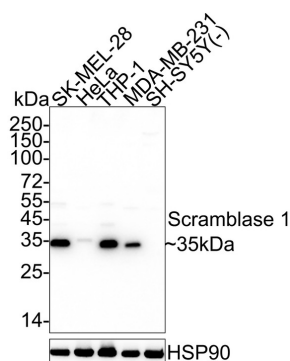
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Images

Fig1: Western blot analysis of Scramblase 1 on different lysates with Rabbit anti-Scramblase 1 antibody (HA500063) at 1/1,000 dilution.



Lane 1: SK-MEL-28 cell lysate

Lane 2: HeLa cell lysate

Lane 3: THP-1 cell lysate

Lane 4: MDA-MB-231 cell lysate

Lane 5: SH-SY5Y cell lysate (negative)

Lysates/proteins at 20 µg/Lane.

Predicted band size: 35 kDa

Observed band size: 35 kDa

Exposure time: 40 seconds; ECL: K1801;

4-20% SDS-PAGE gel.

Proteins were transferred to a PVDF membrane and blocked with 5% NFDM/TBST for 1 hour at room temperature. The primary antibody (HA500063) at 1/1,000 dilution was used in 5% NFDM/TBST at 4°C overnight. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1/50,000 dilution was used for 1 hour at room temperature.

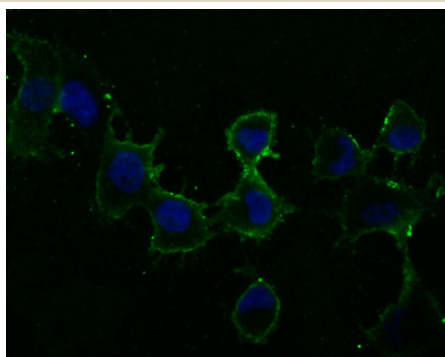


Fig2: ICC staining of Scramblase 1 in HUVEC cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA for 15 minutes at room temperature. Cells were probed with the primary antibody (HA500063, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

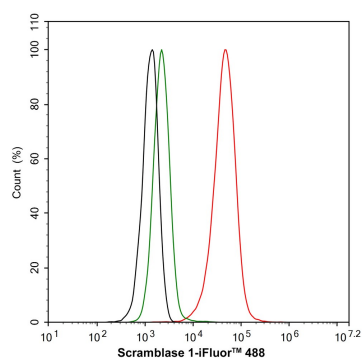


Fig3: Flow cytometric analysis of SK-MEL-28 cells labeling Scramblase 1.

Cells were fixed and permeabilized. Then stained with the primary antibody (HA500063, 1/1,000) (red) compared with Rabbit IgG Isotype Control (green). After incubation of the primary antibody at +4°C for an hour, the cells were stained with a iFluor™ 488 conjugate-Goat anti-Rabbit IgG Secondary antibody (HA1121) at 1/1,000 dilution for 30 minutes at +4°C. Unlabelled sample was used as a control (cells without incubation with primary antibody; black).

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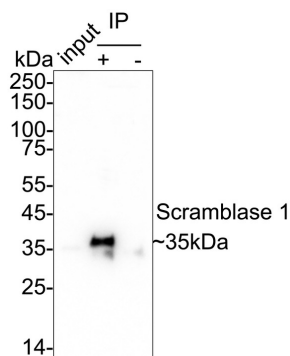


Fig4: Scramblase 1 was immunoprecipitated from 0.2 mg SK-MEL-28 cell lysate with HA500063 at 2 $\mu\text{g}/10 \mu\text{l}$ beads. Western blot was performed from the immunoprecipitate using HA500063 at 1/1,000 dilution. Anti-Rabbit IgG for IP Nano-secondary antibody (NBI01H) at 1/5,000 dilution was used for 1 hour at room temperature.

Lane 1: SK-MEL-28 cell lysate (input)

Lane 2: HA500063 IP in SK-MEL-28 cell lysate

Lane 3: Rabbit IgG instead of HA500063 in SK-MEL-28 cell lysate

Blocking/Dilution buffer: 5% NFD/MTBST

Exposure time: 14 seconds; ECL: K1801

Note: All products are "FOR RESEARCH USE ONLY AND ARE NOT INTENDED FOR DIAGNOSTIC OR THERAPEUTIC USE".

Background References

1. Li H. et. al. PLSCR1/IP3R1/Ca(2+) axis contributes to differentiation of primary AML cells induced by wogonoside. Cell Death Dis. 2017 May
2. Li H. et. al. Wogonoside induces depalmitoylation and translocation of PLSCR1 and N-RAS in primary acute myeloid leukaemia cells. J Cell Mol Med. 2018 Apr

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