Anti-SUN1 Antibody [JG95-31]

ET7108-91

Product Type:	Recombinant Rabbit monoclonal IgG, primary antibodies
Species reactivity:	Human, Rat
Applications:	WB, IHC-P, IF-Cell, FC
Molecular Wt:	90 kDa
Clone number:	JG95-31

Description: UNC84A (UNC84 homolog A), also known as SUN1, is a multi-pass nuclear membrane protein that is involved in nuclear anchoring and migration. Highly expressed in heart, brain and testis, UNC84A functions as an A-type Lamin-binding protein that forms a link between the inner and outer nuclear envelope membranes. This link acts as a structural bridge between the nuclear interior and the Actin cytoskeleton and is essential for proper localization of nuclear envelope proteins. Additionally, UNC84A may be involved in telomere attachment and in normal testis development. UNC84A contains one UNC84 (SUN) domain and exists as four isoforms due to alternative splicing events.

Immunogen: Recombinant protein within Human SUN1 aa 90-240 / 812.

Positive control: Rat kidney tissue lysates, A431, human breast tissue, human colon tissue, Hela.

Subcellular location: Nucleus.

Database links: SwissProt: O94901 Human

Recommended Dilutions:

WB	1:500-1:2,000
IHC-P	1:50-1:200
IF-Cell	1:50-1:200
FC	1:50-1:100

Storage Buffer: 1*TBS (pH7.4), 0.05% BSA, 40% Glycerol. Preservative: 0.05% Sodium Azide.

Storage Instruction: Store at +4℃ after thawing. Aliquot store at -20℃. Avoid repeated freeze / thaw cycles.

Purity: Protein A affinity purified.

Images

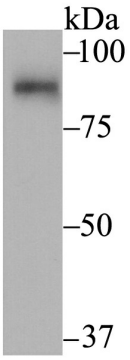

Fig1: Western blot analysis of SUN1 on rat kidney tissue lysates. Proteins were transferred to a PVDF membrane and blocked with 5% BSA in PBS for 1 hour at room temperature. The primary antibody (ET7108-91, 1/500) was used in 5% BSA at room temperature for 2 hours. Goat Anti-Rabbit IgG - HRP Secondary Antibody (HA1001) at 1:200,000 dilution was used for 1 hour at room temperature.

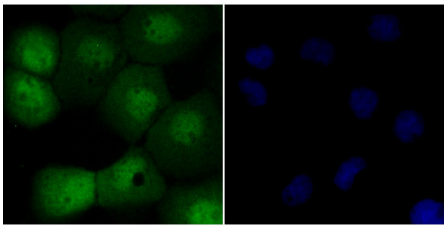

Fig2: ICC staining of SUN1 in A431 cells (green). Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 10% negative goat serum for 15 minutes at room temperature. Cells were probed with the primary antibody (ET7108-91, 1/50) for 1 hour at room temperature, washed with PBS. Alexa Fluor®488 conjugate-Goat anti-Rabbit IgG was used as the secondary antibody at 1/1,000 dilution. The nuclear counter stain is DAPI (blue).

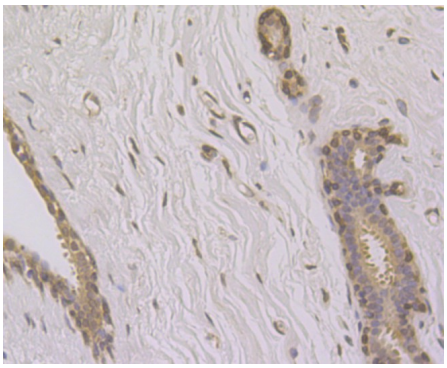

Fig3: Immunohistochemical analysis of paraffin-embedded human breast tissue using anti-SUN1 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes.The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET7108-91, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

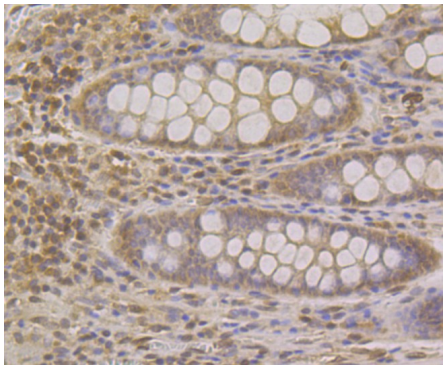

Fig4: Immunohistochemical analysis of paraffin-embedded human colon tissue using anti-SUN1 antibody. The section was pre-treated using heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 20 minutes.The tissues were blocked in 1% BSA for 30 minutes at room temperature, washed with ddH_2O and PBS, and then probed with the primary antibody (ET7108-91, 1/50) for 30 minutes at room temperature. The detection was performed using an HRP conjugated compact polymer system. DAB was used as the chromogen. Tissues were counterstained with hematoxylin and mounted with DPX.

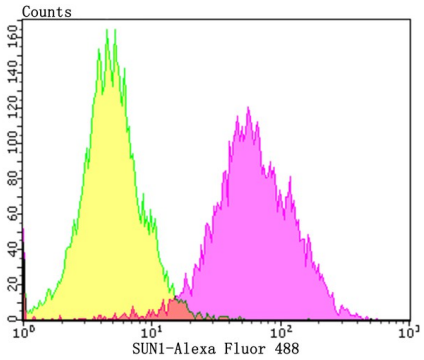

Fig5: Flow cytometric analysis of SUN1 was done on Hela cells. The cells were fixed, permeabilized and stained with the primary antibody (ET7108-91, 1/50) (purple). After incubation of the primary antibody at room temperature for an hour, the cells were stained with a Alexa Fluor®488 conjugate-Goat anti-Rabbit IgG Secondary antibody at 1/1000 dilution for 30 minutes.Unlabelled sample was used as a control (cells without incubation with primary antibody; yellow).

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

Background References

1. Bupp J M et al. Telomere anchoring at the nuclear periphery requires the budding yeast Sad1-UNC-84 domain protein Mps3. J Cell Biol 179:845-854 (2007).
2. Stewart-Hutchinson P J et al. Structural requirements for the assembly of LINC complexes and their function in cellular mechanical stiffness. Exp Cell Res 314:1892-1905 (2008).