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KD-Validated Anti-SUN1 Rabbit Monoclonal Antibody

Rabbit monoclonal antibody
Catalog # AGI1750

Specification

KD-Validated Anti-SUN1 Rabbit Monoclonal Antibody - Product Information

Application	**WB, FC, ICC**
Primary Accession	O94901
Reactivity	**Human**
Clonality	**Monoclonal**
Isotype	**Rabbit IgG**
Calculated MW	**Predicted, 87 kDa , observed , 98 kDa KDa**
Gene Name	**SUN1**
Aliases	**SUN1; Sad1 And UNC84 Domain Containing 1; KIAA0810; UNC84A; SUN Domain-Containing Protein 1; Sad1 Unc-84 Domain Protein 1; Sad1/Unc-84 Protein-Like 1; Protein Unc-84 Homolog A; FLJ12407; Unc-84 Homolog A (C. Elegans); Unc-84 Homolog A**
Immunogen	**A synthesized peptide derived from human SUN1**

KD-Validated Anti-SUN1 Rabbit Monoclonal Antibody - Additional Information

Gene ID	**23353**

Other Names
SUN domain-containing protein 1, Protein unc-84 homolog A, Sad1/unc-84 protein-like 1, SUN1 (HGNC:18587), KIAA0810, UNC84A

KD-Validated Anti-SUN1 Rabbit Monoclonal Antibody - Protein Information

Name SUN1 (HGNC:18587)

Synonyms KIAA0810, UNC84A

Function
As a component of the LINC (LInker of Nucleoskeleton and Cytoskeleton) complex involved in the connection between the nuclear lamina and the cytoskeleton (PubMed:18039933, PubMed:18396275). The nucleocytoplasmic interactions established by the LINC complex play an important role in the transmission of mechanical forces across the nuclear envelope and in nuclear movement and positioning (By similarity). Required for interkinetic nuclear migration (INM) and essential for nucleokinesis and centrosome-nucleus coupling during radial neuronal migration in the cerebral cortex and during glial migration (By similarity). Involved in telomere attachment to nuclear envelope in the prophase of meiosis implicating a SUN1/2:KASH5 LINC complex in which SUN1 and

SUN2 seem to act at least partial redundantly (By similarity). Required for gametogenesis and involved in selective gene expression of coding and non-coding RNAs needed for gametogenesis (By similarity). Helps to define the distribution of nuclear pore complexes (NPCs) (By similarity). Required for efficient localization of SYNE4 in the nuclear envelope (By similarity). May be involved in nuclear remodeling during sperm head formation in spermatogenesis (By similarity). May play a role in DNA repair by suppressing non- homologous end joining repair to facilitate the repair of DNA cross- links (PubMed:24375709).

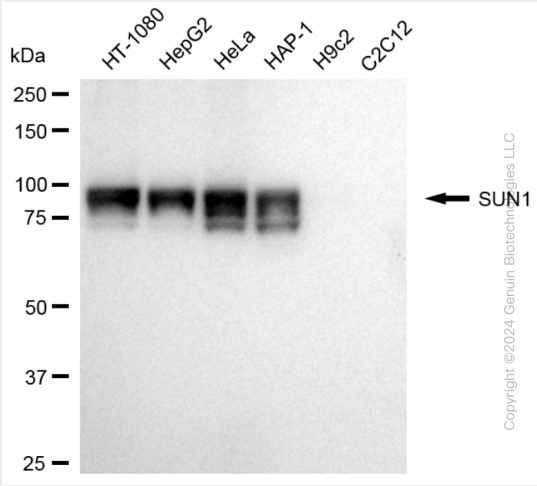
Cellular Location
Nucleus inner membrane; Single-pass type II membrane protein. Note=At oocyte MI stage localized around the spindle, at MII stage localized to the spindle poles {ECO:0000250|UniProtKB:Q9D666}

KD-Validated Anti-SUN1 Rabbit Monoclonal Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

KD-Validated Anti-SUN1 Rabbit Monoclonal Antibody - Images



Western blotting analysis using anti-SUN1 antibody (Cat#AGI1750). Total cell lysates (20 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-SUN1 antibody (Cat#AGI1750, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.

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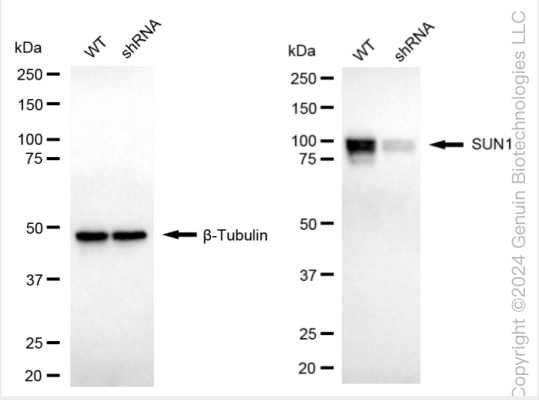
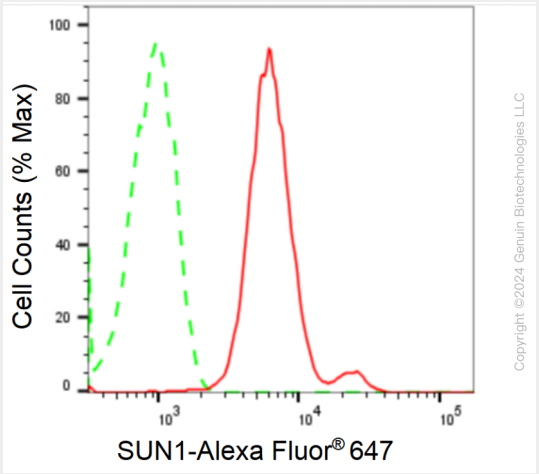
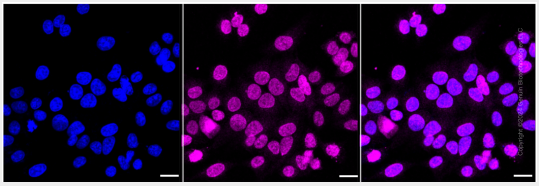


Western blotting analysis using anti-SUN1 antibody (Cat#AGI1750). SUN1 expression in wild-type (WT) and SUN1 shRNA knockdown (KD) HT-1080 cells with 20 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-SUN1 antibody (Cat#AGI1750, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of SUN1 expression in HepG2 cells using anti-SUN1 antibody (Cat#AGI1750, 1:2,000). Green, isotype control; red, SUN1.



Immunocytochemical staining of H9C2 cells with anti-SUN1 antibody (Cat#AGI1750, 1:1,000). Nuclei were stained blue with DAPI; SUN1 was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 µm.