

Product Datasheet

SUN1 Antibody - BSA Free NBP1-87396

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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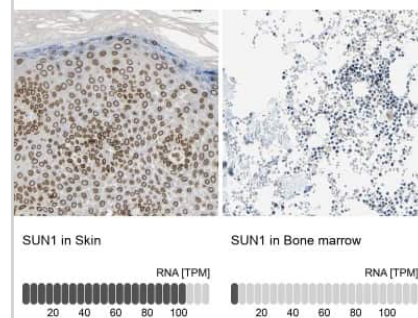
NBP1-87396

SUN1 Antibody - BSA Free

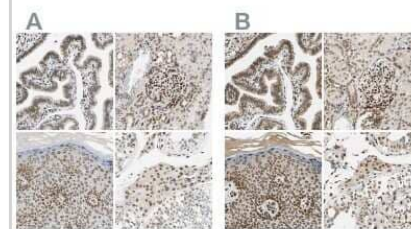
Product Information	
Unit Size	0.1 ml
Concentration	Concentrations vary lot to lot. See vial label for concentration. If unlisted please contact technical services.
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Affinity purified
Buffer	PBS (pH 7.2) and 40% Glycerol
Product Description	
Host	Rabbit
Gene ID	23353
Gene Symbol	SUN1
Species	Human
Immunogen	This antibody was developed against Recombinant Protein corresponding to amino acids: QLLPTVEHLQLELDQLKSELSSWRHVKTGCETVDAVQERVDVQVREMVKLLFS EDQQGGSLEQLLQRFSSQFVSKGDLQTMLRDLQLQILRNVTTHHVSVTKQLPTS EAVVSAVSEAGASGITEAQARAIVNS
Product Application Details	
Applications	Western Blot, Simple Western, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunoprecipitation
Recommended Dilutions	Western Blot Reactivity reported in scientific literature (PMID: 25210889)., Simple Western 1:20, Immunohistochemistry 1:200 - 1:500, Immunocytochemistry/ Immunofluorescence 0.25-2 ug/ml, Immunoprecipitation Reactivity reported in scientific literature (PMID: 25210889)., Immunohistochemistry-Paraffin 1:200-1:500
Application Notes	IHC-Paraffin, HIER pH 6 retrieval is recommended. ICC/IF, Fixation Permeabilization: Use PFA/Triton X-100. In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. See Simple Western Antibody Database for Simple Western validation: Tested in RT-4 and U-251MG, separated by Size, antibody dilution of 1:20, apparent MW was 113 kDa. Separated by Size-Wes, Sally Sue/Peggy Sue.

Images

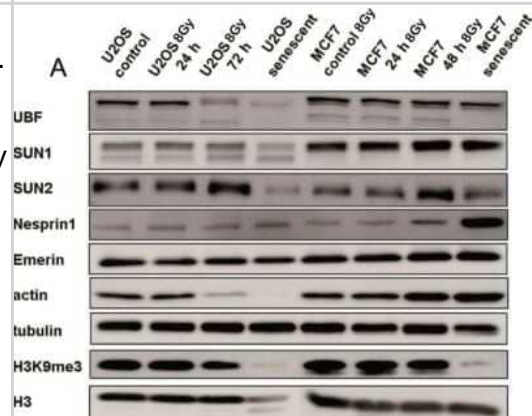
Immunohistochemistry-Paraffin: SUN1 Antibody [NBP1-87396] - Analysis in human skin and bone marrow tissues. Corresponding SUN1 RNA-seq data are presented for the same tissues.



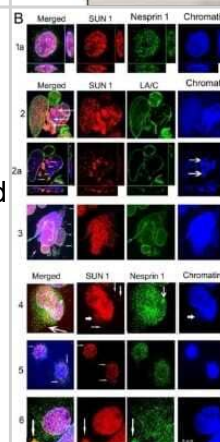
Immunohistochemistry-Paraffin: SUN1 Antibody [NBP1-87396] - Staining of human fallopian tube, kidney, skin and testis using Anti-SUN1 antibody NBP1-87396 (A) shows similar protein distribution across tissues to independent antibody NBP1-87395 (B).



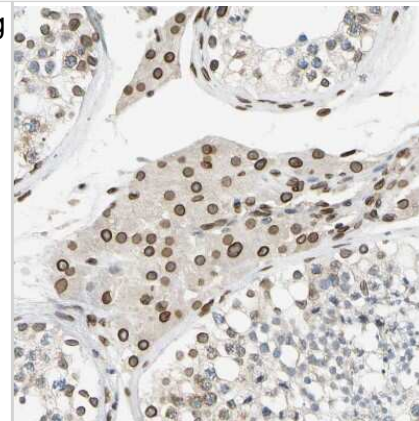
Western Blot: SUN1 Antibody [NBP1-87396] - Western blot analysis of protein expression levels in control and irradiated MCF7 and U2OS cells. Blot cuts showing signals of intact proteins. Note, reduction of SUN2 protein and near absence of H3K9me3 epigenetic modification in senescent cells (7 days post irradiation). Image collected and cropped by CiteAb from the following publication (<https://www.mdpi.com/2073-4409/9/4/999>), licensed under a CC-BY license.



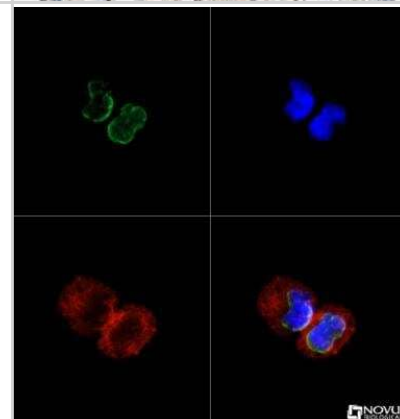
Immunocytochemistry/Immunofluorescence: SUN1 Antibody [NBP1-87396] - Examples of SUN1 a& nesprin-1 mislocalization in MCF7 and U2OS cells 24 h PI with 8 Gy of gamma-rays. 1a-Central slices through nucleus of MCF7 control show SUN1 & nesprin-1 in whole nucleus. 2- Convolved nucleus of U2OS. 2a-Slice showing interrupted LA/C. 3- Convolved nucleus of MCF7 containing 2 large MN, several blisters, and small MN bordered by LAC and filled by SUN1. 5-Tweens of MCF7 daughter nuclei connected by a thin anaphase bridge have fragmented SUN1 in the NE (arrows). 6-U2OS nucleus with amplified SUN1 and a clump (arrow) containing SUN1 and nesprin-1. Size bar indicates 5um. Image collected and cropped by CiteAb from the following publication (<https://www.mdpi.com/2073-4409/9/4/999>), licensed under a CC-BY license.



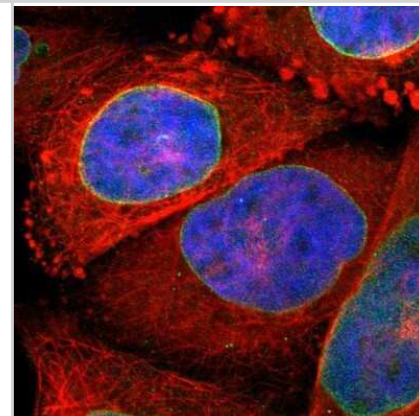
Immunohistochemistry-Paraffin: SUN1 Antibody [NBP1-87396] - Staining of human testis shows strong positivity in nuclear membrane in Leydig cells.



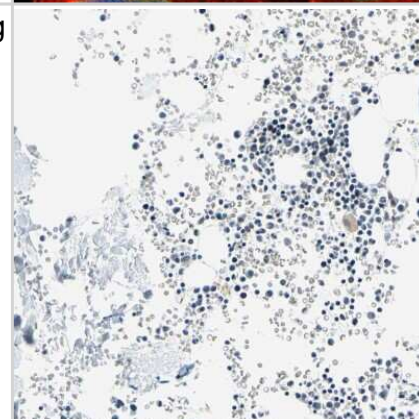
Immunocytochemistry/Immunofluorescence: SUN1 Antibody [NBP1-87396] - Staining of A431 cells at 4ug/ml against Dylight 488 (Green). Alpha-tubulin and nuclei were counterstained against Dylight 550 (red) and DAPI (blue), respectively.



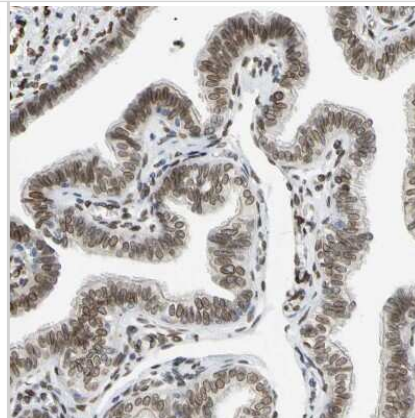
Immunocytochemistry/Immunofluorescence: SUN1 Antibody [NBP1-87396] - Staining of human cell line A-431 shows positivity in nuclear membrane. Antibody staining is shown in green.



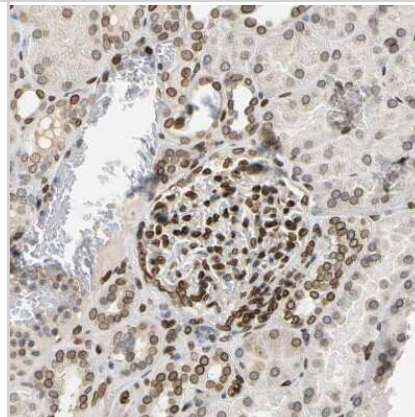
Immunohistochemistry-Paraffin: SUN1 Antibody [NBP1-87396] - Staining of human bone marrow shows low positivity in hematopoietic cells as expected.



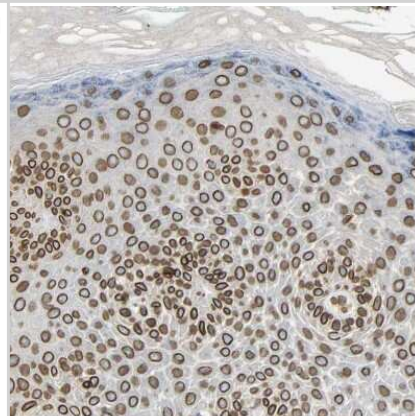
Immunohistochemistry-Paraffin: SUN1 Antibody [NBP1-87396] - Staining of human Fallopian tube shows moderate positivity in nuclear membrane in glandular cells.



Immunohistochemistry-Paraffin: SUN1 Antibody [NBP1-87396] - Staining of human kidney shows strong positivity in nuclear membrane in cells in glomeruli.



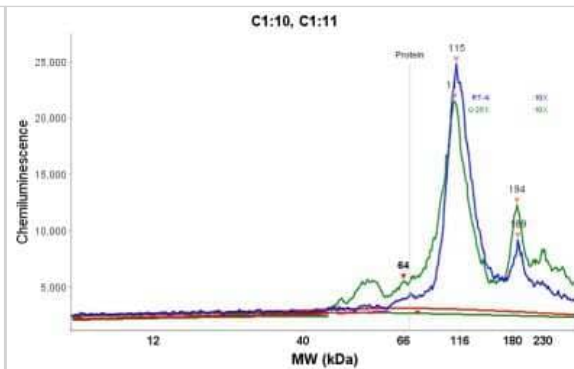
Immunohistochemistry-Paraffin: SUN1 Antibody [NBP1-87396] - Staining of human skin shows strong positivity in nuclear membrane in squamous epithelial cells.



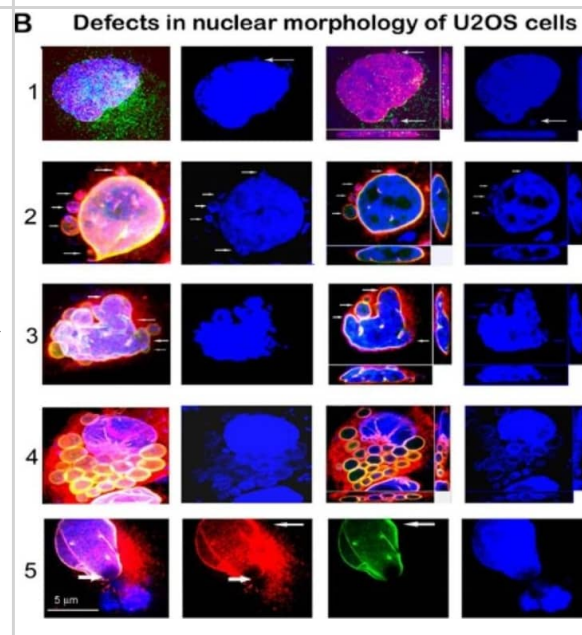
Simple Western: SUN1 Antibody [NBP1-87396] - Simple Western lane view shows a specific band for SUN1 in 0.2 mg/ml of RT-4 (Left) and U-251MG (Right) lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



Simple Western: SUN1 Antibody [NBP1-87396] - Electropherogram image(s) of corresponding Simple Western lane view. SUN1 antibody was used at 1:20 dilution on RT-4 and U-251MG lysate(s).



Immunocytochemistry/ Immunofluorescence: SUN1 Antibody [NBP1-87396] - Examples of nuclear morphology defects in (A) MCF7 & (B) U2OS cell lines 24 h PI with the dose of 8 Gy of γ -rays. (A) 1—An anaphase bridge linking the separating daughter nuclei, SUN1 (red), nesprin1 (green), 2—Convolutated nucleus with blisters (arrows), LA/C (green), emerin (red). 3—Fragmented nucleus represented by 3 large & numerous small micronuclei. SUN2 (red), nesprin-1 (green). (B) 1— A giant nucleus with small chromatin fragments & micronuclei (MN, arrows), SUN1 (red), nesprin-1 (green). 2—Nucleus with micronuclei, emerin (red), lamin A/C (green), arrows indicate MN containing emerin & heterochromatin (HC), 3—Convolutated nucleus with blisters (arrows), emerin (red), LA/C (green). 4—Fragmented nucleus, emerin (red), LA/C (green). 5—Honeycombed nucleus, emerin (red), LA/C (green), thick arrow shows interrupted NE enabling chromatin to leak out of the nucleus, reinforced layer of LA/C (green) & emerin (red), (thin arrows). Size bar indicates μm . Image collected & cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/32316379>), licensed under a CC-BY license. Not internally tested by Novus Biologicals.



Publications

Rosencrance C, Walsh D Microtubule mechanotransduction refines cytomegalovirus interactions with and remodeling of host chromatin *Nature Communications* 2025-08-13 [PMID: 40804345]

Park JW, Lee EJ, Moon E et Al. Orthodenticle homeobox 2 is transported to lysosomes by nuclear budding vesicles *Nat Commun* 2023-02-27 [PMID: 36849521] (Western Blot, Immunocytochemistry, Immunocytochemistry/Immunofluorescence)

Amanda L. Gunn, Artem I. Yashchenko, Julien Dubrulle, Jodiene Johnson, Emily M. Hatch A high-content screen reveals new regulators of nuclear membrane stability *Scientific Reports* 2024-03-12 [PMID: 38472343]

Gunn AL, Yashchenko AI, Dubrulle J et al. A high-content screen reveals new regulators of nuclear membrane stability *bioRxiv : the preprint server for biology* 2023-09-10 [PMID: 37398267] (WB, Human)

Details:

1:1000 WB dilution

Kong Y, Zhang Y, Wang H Et al. Inner nuclear membrane protein TMEM201 promotes breast cancer metastasis by positive regulating TGFbeta signaling *Oncogene* 2021-11-19 [PMID: 34799661] (WB)

Alena S K, Bartova E et al. Spatiotemporal Mislocalization of Nuclear Membrane-Associated Proteins in gamma-Irradiation-Induced Senescent Cells. *Cells* 2020-04-17 [PMID: 32316379] (ICC/IF, WB, Human)

Procter DJ, Furey C, Garza-Gongora AG et al. Cytoplasmic control of intranuclear polarity by human cytomegalovirus *Nature* 2020-09-09 [PMID: 32908309] (WB)

Takaki T, Montagner M, Serres MP et al. Actomyosin drives cancer cell nuclear dysmorphia and threatens genome stability *Nat Commun* 2017-07-24 [PMID: 28737169] (ICC/IF, Human)

Rog O, Kohler S, Dernburg AF. The synaptonemal complex has liquid crystalline properties and spatially regulates meiotic recombination factors *Elife* 2017-01-03 [PMID: 28045371] (ICC/IF)

Meinke P, Mattioli E, Haque F et al. Muscular Dystrophy-Associated SUN1 and SUN2 Variants Disrupt Nuclear-Cytoskeletal Connections and Myonuclear Organization. *PLoS Genet* 2014-09-01 [PMID: 25210889] (ICC/IF, WB, IP, Human)

Horn HF, Kim DI, Wright GD et al. A mammalian KASH domain protein coupling meiotic chromosomes to the cytoskeleton. *J Cell Biol* 2013-09-30 [PMID: 24062341]

Crabbe L, Cesare AJ, Kasuboski JM et al. Human telomeres are tethered to the nuclear envelope during post-mitotic nuclear assembly. *Cell Rep* 2012-12-27 [PMID: 23260663]

More publications at <http://www.novusbio.com/NBP1-87396>





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Products Related to NBP1-87396

NBP1-87396PEP	SUN1 Recombinant Protein Antigen
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

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