abcam

Product datasheet

Anti-SUN2 antibody [EPR6557] ab124916

Recombinant RabMAb

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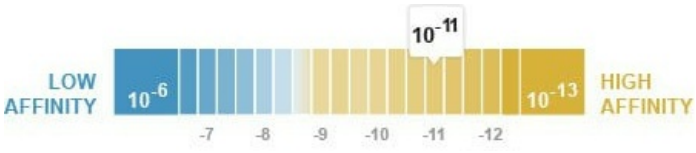
Overview

Product name	Anti-SUN2 antibody [EPR6557]
Description	Rabbit monoclonal [EPR6557] to SUN2
Host species	Rabbit
Tested applications	**Suitable for:** Flow Cyt (Intra), WB, IHC-P, ICC/IF
Species reactivity	**Reacts with:** Mouse, Rat, Human
Immunogen	Synthetic peptide within Human SUN2 aa 700 to the C-terminus (C terminal). The exact sequence is proprietary. Database link: **Q9UH99**
Positive control	WB: Human fetal muscle, Saos-2, HeLa, Jurkat and HepG2 lysates. IHC-P: Human lung and ovary tissues. Flow Cyt (intra): HeLa cells. ICC/IF: HeLa cells.
General notes	This product is a recombinant monoclonal antibody, which offers several advantages including: - High batch-to-batch consistency and reproducibility - Improved sensitivity and specificity - Long-term security of supply - Animal-free production For more information **see here**. Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to **RabMAb® patents**.

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
Dissociation constant (K_D)	$K_D = 5.43 \times 10^{-11}$ M



Learn more about K_D

Storage buffer	pH: 7.20

	Preservative: 0.01% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 0.05% BSA, 59% PBS
Purity	Protein A purified
Clonality	Monoclonal
Clone number	EPR6557
Isotype	IgG

Applications

The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab124916 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

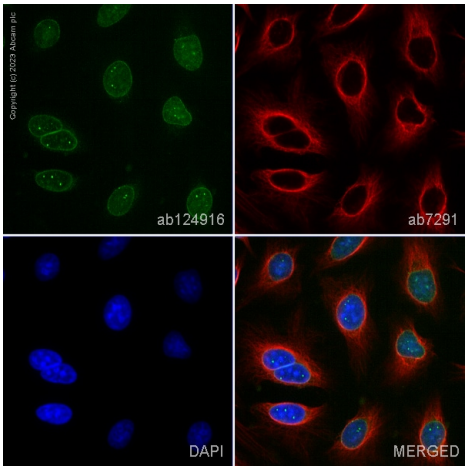
Application	Abreviews	Notes
Flow Cyt (Intra)		1/30.
WB	★★★★★ (3)	1/1000 - 1/10000. Predicted molecular weight: 80 kDa.
IHC-P		1/250 - 1/1000. Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.
ICC/IF	★★★★★ (2)	Use a concentration of 0.2 - 1 µg/ml.

Target

Relevance SUN proteins form part of the LINC complex - a protein bridge that spans the nuclear envelope linking the nucleoskeleten to the actin cytoskeleten. They are located on the inner nuclear membrane side of the complex. The LINC complex is thought to function in controlling nuclear position, contributing to mechanical resistance and the overall architecture of the cell. SUN2 can exist in a heterodimer with SUN1. Both can interact with lamins and nesprins in the nuclear envelope.

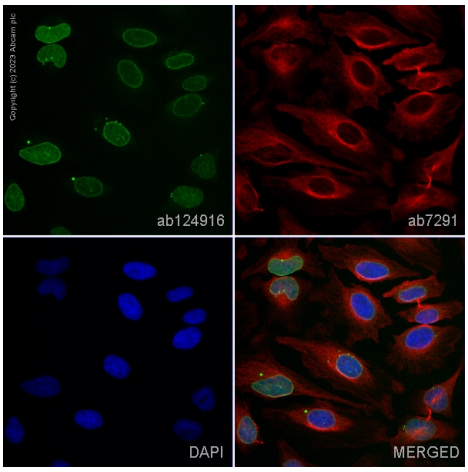
Cellular localization Nuclear membrane, endosome membrane, mitotic spindle organization.

Images



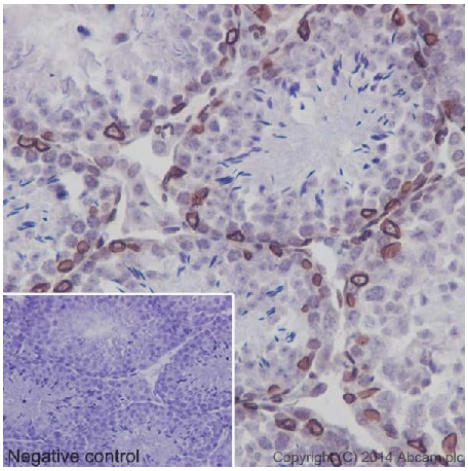
Immunocytochemistry/ Immunofluorescence - Anti-SUN2 antibody [EPR6557] (ab124916)

Immunofluorescence staining of SUN2 using ab124916 in HeLa cells. The cells were fixed with 100% methanol (5 min), permeabilized with 0.1% Triton-X-100 (in PBS) for 5 mins and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab124916 at 1.0 µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin, at 1/1000 dilution. Cells were then incubated with **ab150081**, Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) preadsorbed at 1/1000 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).
Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



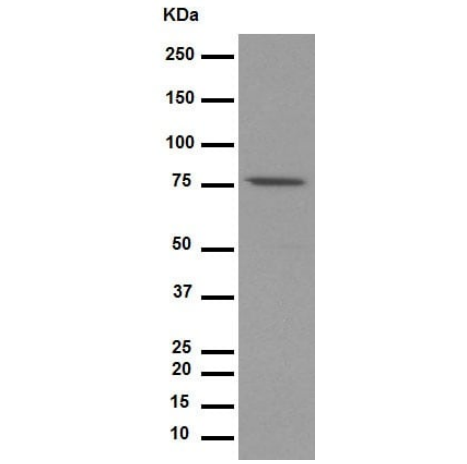
Immunocytochemistry/ Immunofluorescence - Anti-SUN2 antibody [EPR6557] (ab124916)

Immunofluorescence staining of SUN2 using ab124916 in HeLa cells. The cells were fixed with 4% formaldehyde (10 min), permeabilized with 0.1% Triton-X-100 (in PBS) for 5 mins and then blocked with 1% BSA/10% normal goat serum/0.3M glycine in 0.1% PBS-Tween for 1h. The cells were then incubated overnight at +4°C with ab124916 at 0.2 µg/ml and **ab7291**, Mouse monoclonal [DM1A] to alpha Tubulin, at 1/1000 dilution. Cells were then incubated with **ab150081**, Goat Anti-Rabbit IgG H&L (Alexa Fluor® 488) preadsorbed at 1/1000 dilution (shown in green) and **ab150120**, Goat Anti-Mouse IgG H&L (Alexa Fluor® 594) preadsorbed at 1/1000 dilution (shown in red). Nuclear DNA was labelled with DAPI (shown in blue).
Image was acquired with a high-content analyser (Operetta CLS, Perkin Elmer) and a maximum intensity projection of confocal sections is shown.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SUN2 antibody [EPR6557] (ab124916)

ab124916 staining SUN2 in mouse testis tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed and paraffin-embedded, antigen retrieval was by heat mediation in Tris/EDTA buffer pH9. Samples were incubated with primary antibody (1/500). An HRP-conjugated goat anti-rabbit IgG, **ab97051** (1/500) was used as the secondary antibody. Tissue counterstained with Hematoxylin. PBS was used in the negative control rather than the Primary antibody.



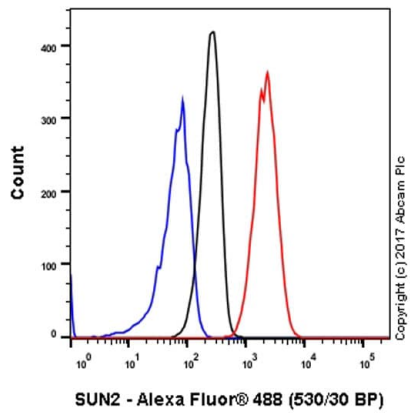
Western blot - Anti-SUN2 antibody [EPR6557] (ab124916)

Anti-SUN2 antibody [EPR6557] (ab124916) at 1/5000 dilution + Rat brain lysate at 10 µg

Secondary

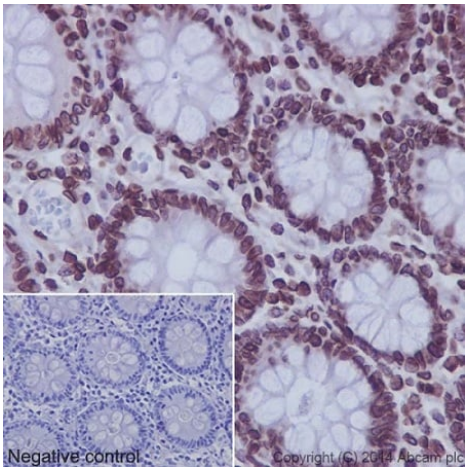
Goat Anti-Rabbit IgG, (H+L), HRP- conjugated at 1/1000 dilution

Predicted band size: 80 kDa



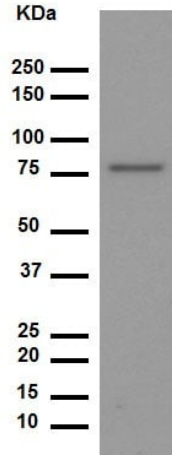
Flow Cytometry (Intracellular) - Anti-SUN2 antibody [EPR6557] (ab124916)

Intracellular Flow Cytometry analysis of HeLa (human cervix adenocarcinoma) cells labeling SUN2 (red) with ab124916 at a 1/30 dilution. Cells were fixed with 80% methanol and permeabilized with 0.1% Tween-20. A goat anti-rabbit IgG (Alexa Fluor® 488) (**ab150077**) was used as the secondary antibody at a 1/2000 dilution. Black - Rabbit monoclonal IgG (**ab172730**). Blue (unlabeled control) - Cells without incubation with the primary and secondary antibodies.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SUN2 antibody [EPR6557] (ab124916)

ab124916 staining SUN2 in Human colon tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed and paraffin-embedded, antigen retrieval was by heat mediation in Tris/EDTA buffer pH9. Samples were incubated with primary antibody (1/500). An HRP-conjugated Goat anti-rabbit IgG, **ab97051** (1/500), was used as the secondary antibody. Tissue counterstained with Hematoxylin. PBS was used in the negative control rather than the Primary antibody.



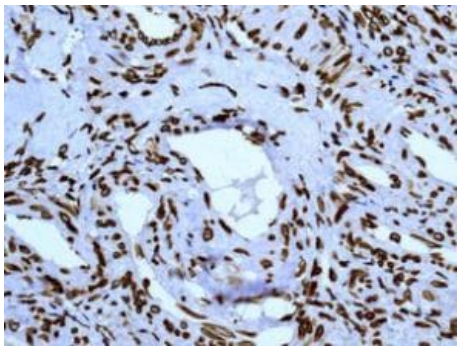
Western blot - Anti-SUN2 antibody [EPR6557] (ab124916)

Anti-SUN2 antibody [EPR6557] (ab124916) at 1/5000 dilution + Mouse heart lysate at 20 µg

Secondary

Goat Anti-Rabbit IgG, (H+L), HRP- conjugated at 1/1000 dilution

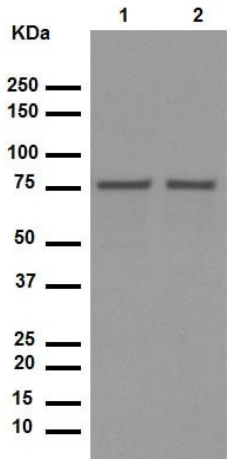
Predicted band size: 80 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SUN2 antibody [EPR6557] (ab124916)

ab124916, unpurified, at a 1/250 dilution, staining SUN2 in paraffin embedded Human ovarian tissue by Immunohistochemistry.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-SUN2 antibody [EPR6557] (ab124916)

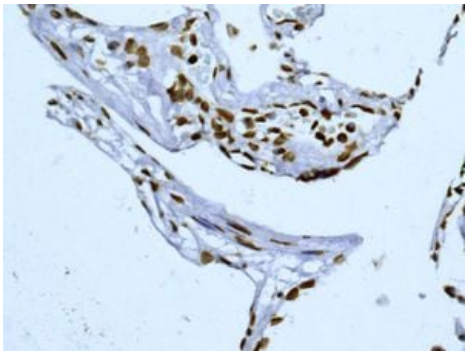
All lanes : Anti-SUN2 antibody [EPR6557] (ab124916) at 1/5000 dilution

Lane 1 : HeLa cell Lysate
Lane 2 : Jurkat cell Lysate

Lysates/proteins at 20 µg per lane.

Secondary
All lanes : Goat Anti-Rabbit IgG, (H+L), HRP- conjugated at 1/1000 dilution

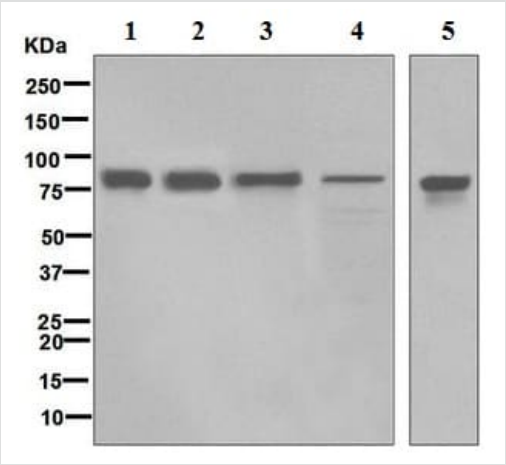
Predicted band size: 80 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-SUN2 antibody [EPR6557] (ab124916)

ab124916, unpurified, at a 1/250 dilution, staining SUN2 in paraffin embedded Human lung tissue by Immunohistochemistry.

Perform heat mediated antigen retrieval with Tris/EDTA buffer pH 9.0 before commencing with IHC staining protocol.



Western blot - Anti-SUN2 antibody [EPR6557] (ab124916)

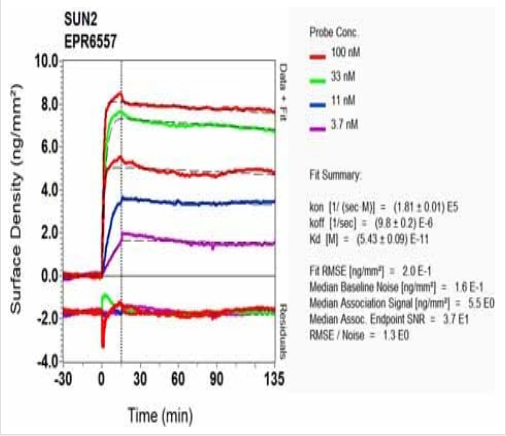
All lanes : Anti-SUN2 antibody [EPR6557] (ab124916) at 1/1000 dilution (unpurified)

Lane 1 : Human fetal muscle lysate
Lane 2 : Saos-2 lysate
Lane 3 : HeLa lysate
Lane 4 : Jurkat lysate
Lane 5 : HepG2 lysate

Lysates/proteins at 10 µg per lane.

Secondary
All lanes : HRP labelled goat anti-rabbit at 1/2000 dilution

Predicted band size: 80 kDa

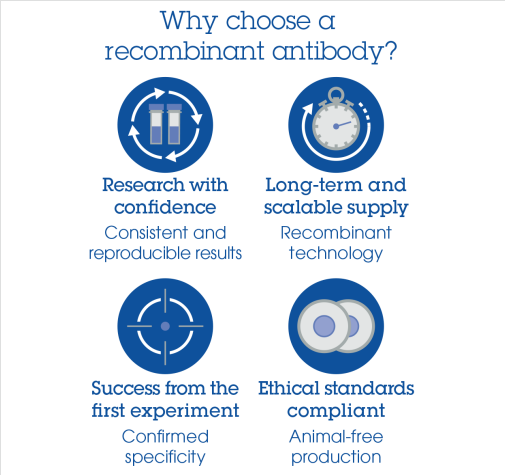


OI-RD Scanning - Anti-SUN2 antibody [EPR6557] (ab124916)

Equilibrium disassociation constant (K_D)

Learn more about K_D

Click here to learn more about K_D



Anti-SUN2 antibody [EPR6557] (ab124916)

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