



## Product datasheet

### Anti-Nesprin 2 antibody ab204308

★★★★★ [2 Abreviews](#) [1 References](#) [4 Images](#)

#### Overview

<b>Product name</b>	Anti-Nesprin 2 antibody
<b>Description</b>	Rabbit polyclonal to Nesprin 2
<b>Host species</b>	Rabbit
<b>Tested applications</b>	<b>Suitable for:</b> ICC, IHC-P
<b>Species reactivity</b>	<b>Reacts with:</b> Human
<b>Immunogen</b>	Recombinant fragment corresponding to Human Nesprin 2 aa 4200-4350. Database link: <a href="#">Q8WXH0</a>
	<div>  <a href="#">Run BLAST with</a>  <a href="#">Run BLAST with</a> </div>
<b>Positive control</b>	IHC-P: Human kidney, skin, and testis tissues; ICC: MCF7 cells.
<b>General notes</b>	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### Properties

<b>Form</b>	Liquid
<b>Storage instructions</b>	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
<b>Storage buffer</b>	pH: 7.20 Preservative: 0.02% Sodium azide Constituents: 40% Glycerol (glycerin, glycerine), 59% PBS
<b>Purity</b>	Immunogen affinity purified
<b>Clonality</b>	Polyclonal
<b>Isotype</b>	IgG

#### Applications

## The Abpromise guarantee

Our **Abpromise guarantee** covers the use of ab204308 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
ICC		Use a concentration of 0.25 - 2 µg/ml.
IHC-P		1/500 - 1/1000. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

## Target

### Function

Multi-isomeric modular protein which forms a linking network between organelles and the actin cytoskeleton to maintain the subcellular spatial organization. Component of SUN-protein-containing multivariate complexes also called LINC complexes which link the nucleoskeleton and cytoskeleton by providing versatile outer nuclear membrane attachment sites for cytoskeletal filaments. Involved in the maintenance of nuclear organization and structural integrity. Connects nuclei to the cytoskeleton by interacting with the nuclear envelope and with F-actin in the cytoplasm. Specifically, SYNE2 and SUN2 assemble in arrays of transmembrane actin-associated nuclear (TAN) lines which are bound to F-actin cables and couple the nucleus to retrograde actin flow during actin-dependent nuclear movement. Required for centrosome migration to the apical cell surface during early ciliogenesis.

### Tissue specificity

Widely expressed, with higher level in kidney, adult and fetal liver, stomach and placenta. Weakly expressed in skeletal muscle and brain. Isoform 5 is highly expressed in pancreas, skeletal muscle and heart.

### Involvement in disease

Defects in SYNE2 are the cause of Emery-Dreifuss muscular dystrophy type 5 (EDMD5) [MIM:612999]. A degenerative myopathy characterized by weakness and atrophy of muscle without involvement of the nervous system, early contractures of the elbows, Achilles tendons and spine, and cardiomyopathy associated with cardiac conduction defects.

### Sequence similarities

Belongs to the nesprin family.  
Contains 1 actin-binding domain.  
Contains 2 CH (calponin-homology) domains.  
Contains 1 KASH domain.  
Contains 9 spectrin repeats.

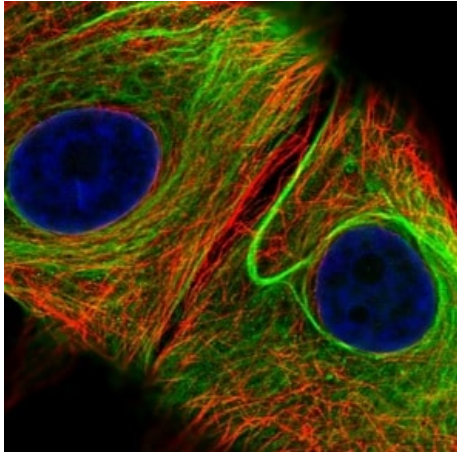
### Domain

The KASH domain mediates the nuclear envelope targeting.

### Cellular localization

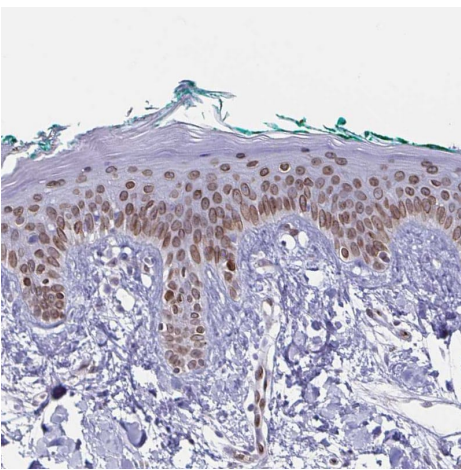
Nucleus outer membrane. Sarcoplasmic reticulum membrane. Cell membrane. Cytoplasm > cytoskeleton. Mitochondrion. Nucleus > nucleoplasm. Different isoform patterns are found in the different compartments of the cell. The isoforms having the C-terminal transmembrane span can be found in several organellar membranes like the nuclear envelope, the sarcoplasmic reticulum of myoblasts, or the lamellipodia and focal adhesions at the cell membrane. The largest part of the outer nuclear membrane-associated protein is cytoplasmic, while its C-terminal part is associated with the nuclear envelope, most probably the outer nuclear membrane. Remains associated with the nuclear envelope during its breakdown in mitotic cells. Shorter solubles isoforms can be found in the cytoplasm and within the nucleus.

## Images



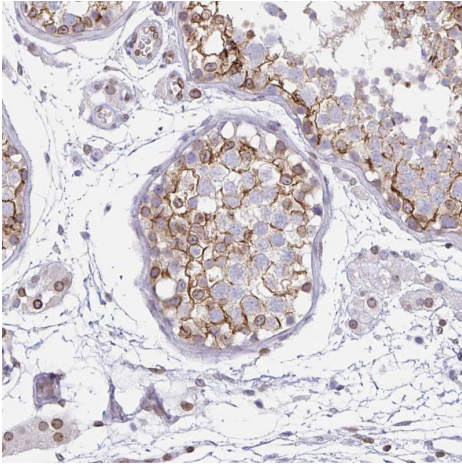
Immunocytochemistry - Anti-Nesprin 2 antibody  
(ab204308)

Immunofluorescent analysis of MCF7 cells (PFA-fixed/Triton X-100 permeabilized) labeling Nesprin 2 with ab204308 at 4  $\mu\text{g/mL}$ .



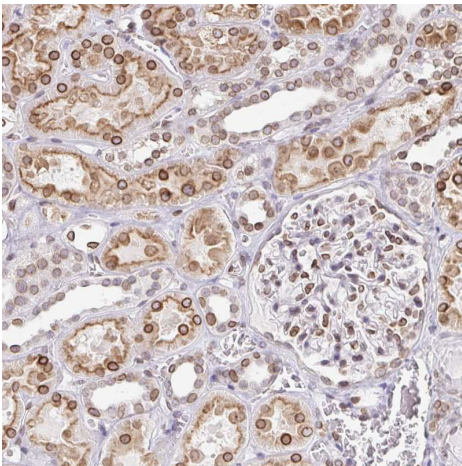
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nesprin 2 antibody  
(ab204308)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of skin tissue labelling Nesprin 2 with ab204308 at 1/500 dilution. Heat mediated antigen retrieval performed with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nesprin 2 antibody (ab204308)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of testis tissue labelling Nesprin 2 with ab204308 at 1/500 dilution. Heat mediated antigen retrieval performed with citrate buffer pH 6 before commencing with IHC staining protocol.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Nesprin 2 antibody (ab204308)

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) analysis of kidney tissue labelling Nesprin 2 with ab204308 at 1/500 dilution. Heat mediated antigen retrieval performed with citrate buffer pH 6 before commencing with IHC staining protocol.

**Please note:** All products are "FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES"

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