# abcam

## Product datasheet

## Anti-Desmuslin/SYN antibody ab214316

## 2 Images

#### Overview

Product name Anti-Desmuslin/SYN antibody

**Description** Rabbit polyclonal to Desmuslin/SYN

Host species Rabbit

Tested applications

Suitable for: IHC-P

Species reactivity

Reacts with: Rat

Predicted to work with: Mouse, Human

Immunogen Synthetic peptide within Human Desmuslin/SYN aa 500-600 conjugated to keyhole limpet

haemocyanin. The exact immunogen sequence used to generate this antibody is proprietary information. If additional detail on the immunogen is needed to determine the suitability of the

antibody for your needs, please  $\underline{\text{contact}}$  our Scientific Support team to discuss your

requirements.

Database link: O15061

Run BLAST with
Run BLAST with

**Positive control** Rat heart and skeletal tissues.

**General notes**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.

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&As

#### **Properties**

Form Liquid

**Storage instructions** 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.

Storage buffer pH: 7.40

Preservative: 0.02% Proclin 300

Constituents: 50% Glycerol (glycerin, glycerine), 1% BSA, 48.98% TBS, 1X

**Purity** Protein A purified

1

**Clonality** Polyclonal

**Isotype** IgG

#### **Applications**

#### The Abpromise guarantee

Our Abpromise quarantee covers the use of ab214316 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
IHC-P		1/100 - 1/500. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol.

#### **Target**

**Function** 

Type-VI intermediate filament (IF) which plays an important cytoskeletal role within the muscle cell cytoskeleton. It forms heteropolymeric IFs with desmin and/or vimentin, and via its interaction with cytoskeletal proteins alpha-dystrobrevin, dystrophin, talin-1, utrophin and vinculin, is able to link these heteropolymeric IFs to adherens-type junctions, such as to the costameres, neuromuscular junctions, and myotendinous junctions within striated muscle cells.

Tissue specificity

Isoform 2 is strongly detected in adult heart, fetal skeletal muscles and fetal heart. Isoform 1 is weakly detected in fetal heart and also in fetal skeletal muscle. Isoform 1 and isoform 2 are detected in adult bladder (at protein level). The mRNA is predominantly expressed in heart and muscle with some expression in brain which may be due to tissue-specific isoforms.

Sequence similarities

Belongs to the intermediate filament family.

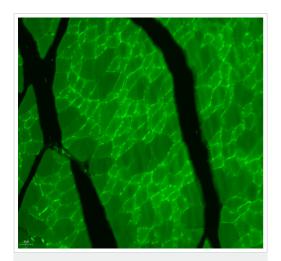
**Developmental stage** 

In lens, first detected at 16 weeks when expression is weakly and uniformly distributed. Subsequently, expression becomes much stronger in the epithelium of the anterior part at 25 weeks and later. In retina, weakly expressed at 15 weeks in the nerve fiber and ganglion cell layers (NFL and GCL). From 25 weeks onwards, much stronger expression is observed in the endfeet of Mueller cells, the NFL, and GCL, and much lower expression is observed in a minor subpopulation of cells in the inner cell layer (INL). At 30 and 36 weeks, expression remains in the neural retina, and subsequently becomes stronger in the NFL, GCL, and INL and is decreased in Mueller cells. At 36 weeks, also expressed at the external border of the outer nuclear layer (ONL) (at protein level).

Cellular localization

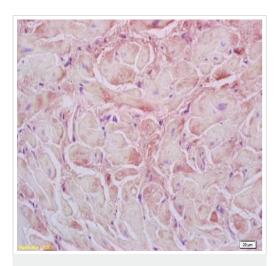
Cytoplasm, cytoskeleton. Cell junction, adherens junction. There are at least two distinct SYNM subpopulations, one in which SYMN interacts with DES within the Z-lines, and another in which it interacts with both DTNA and DES at the costamere.

## **Images**



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Desmuslin/SYN antibody (ab214316)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded rat brain tissue labeling Desmuslin/SYN with ab214316 at 1/4200 dilution, followed by FITC conjugated secondary antibody.



Immunohistochemistry (Formalin/PFA-fixed paraffinembedded sections) - Anti-Desmuslin/SYN antibody (ab214316)

Immunohistochemical analysis of formalin-fixed, paraffin-embedded rat heart tissue labeling Desmuslin/SYN with ab214316 at 1/200 dilution, followed by conjugation to the secondary antibody and DAB staining.

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

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