abcam

ab248176

Anti-Desmocollin 3 antibody [EPR7486] - BSA and Azide free

Recombinant | RabMAb

Key facts

Isotype	IgG
Host species	Rabbit
Storage buffer	pH: 7.2 - 7.4 Constituents: PBS
Form	Liquid
Clonality	Monoclonal
Immunogen	The exact immunogen used to generate this antibody is proprietary information.
Carrier free	Yes
Clone number	EPR7486
Purification technique	Affinity purification Protein A
Specificity	This antibody cross-reacts weakly with Desmocollin 2.
Dissociation constant	2.4 x 10^{-11} M
Concentration	0.928 mg/mL The concentration of this product may be batch-dependent Batch concentration finder →

Reactivity data

IP

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

WB

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat
Dilution info	-
Notes	-

IHC-P

Not recommended

Species	Human, Mouse, Rat
Dilution info	-
Notes	-

Flow Cyt (Intra)

Tested

Species	Human
Dilution info	-
Notes	-

Predicted

Species	Mouse, Rat

Dilution info	-
Notes	-

Target data

See full target information DSC3

Function	A component of desmosome cell-cell junctions which are required for positive regulation of cellular adhesion (By similarity). Required for cell-cell adhesion in the epidermis, as a result required for the maintenance of the dermal cohesion and the dermal barrier function (PubMed:19717567). Required for cell-cell adhesion of epithelial cell layers surrounding the telogen hair club, as a result plays an important role in telogen hair shaft anchorage (By similarity). Essential for successful completion of embryo compaction and embryo development (By similarity).

Storage

Shipped at conditions	Blue Ice
Appropriate short-term storage conditions	+4°C
Appropriate long-term storage conditions	+4°C
Storage information	Do Not Freeze

Notes

ab248176 is the carrier-free version of ab126768.

Patented technology

Our RabMAb® technology is a patented hybridoma-based technology for making rabbit monoclonal antibodies. For details on our patents, please refer to RabMAb® patents.

What are the advantages of a recombinant monoclonal antibody?

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 batch production

For more information, read more on recombinant antibodies.

Conjugation ready

Our carrier-free antibodies are typically supplied in a PBS-only formulation, purified and free of BSA, sodium azide

and glycerol. This conjugation-ready format is designed for use with fluorochromes, metal isotopes, oligonucleotides, and enzymes, which makes them ideal for antibody labelling, functional and cell-based assays, flow-based assays (e.g. mass cytometry) and Multiplex Imaging applications.

Use our conjugation kits for antibody conjugates that are ready-to-use in as little as 20 minutes with 1 minute hands-on-time and 100% antibody recovery: available for fluorescent dyes, HRP, biotin and gold.

Compatibility
This product is compatible with the Maxpar® Antibody Labeling Kit from Fluidigm, without the need for antibody preparation. Maxpar® is a trademark of Fluidigm Canada Inc.

Supplementary info

This supplementary information is collated from multiple sources and compiled automatically.

Activity summary	Desmocollin 3 also known as DSC3 is a desmosomal cadherin protein with a molecular mass of approximately 100 kDa. It plays an important role in cell adhesion by forming part of the desmosomes which are specialized junctions that connect adjacent cells. DSC3 is primarily expressed in epithelial tissues such as the skin and mucous membranes. By contributing to the structural integrity of epithelial cell layers DSC3 ensures cells stick together firmly providing mechanical stability.
Biological function summary	Desmocollin 3 is a part of the cadherin superfamily which are calcium-dependent adhesion proteins. Within desmosomes DSC3 interacts closely with desmogleins and other cadherins to form strong intercellular connections. This protein is an essential component of the desmosomal adhesion complex that helps maintain tissue architecture. The interaction between DSC3 and other cadherins regulates the cohesion and communication between epithelial cells which is vital for normal tissue function.
Pathways	Desmocollin 3 is an important participant in the cadherin signaling pathway and intercellular junction organization. These pathways are important for the regulation of tissue morphogenesis and the maintenance of cell polarity and tissue architecture. DSC3 functions alongside proteins like plakoglobin an integral part of the desmosome complex that helps bridge cadherins with cytoskeletal elements. This intricate network supports tissue resilience and adaptive responses to mechanical stress.
Associated diseases and disorders	Desmocollin 3 has strong associations with skin diseases such as pemphigus vulgaris and squamous cell carcinoma. In pemphigus vulgaris antibodies target desmosomal components like DSC3 leading to a loss of cell adhesion and blistering of the skin. In squamous cell carcinoma aberrant expression or function of DSC3 can contribute to the invasive potential of cancer cells. DSC3's interaction with desmogleins in these conditions highlights its importance in disease mechanisms and potential as a therapeutic target.

Product promise

Tested

We have tested this species and application combination and it works. It is covered by our product promise.

Expected

We have not tested this specific species and application combination in-house, but expect it will work. It is covered by our product promise.

Predicted

This species and application combination has not been tested, but we predict it will work based on strong homology. However, this combination is not covered by our product promise.

Not recommended

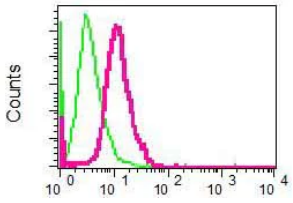
We do not recommend this combination. It is not covered by our product promise.

We are dedicated to supporting your work with high quality reagents and we are here for you every step of the way should you need us.

In the unlikely event of one of our products not working as expected, you are covered by our product promise.

Full details and terms and conditions can be found here:
Terms & Conditions.

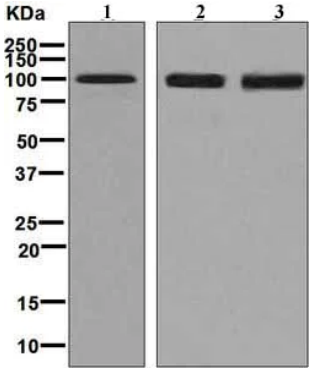
4 product images



Flow Cytometry (Intracellular) - Anti-Desmocollin 3 antibody [EPR7486] - BSA and Azide free (ab248176)

Desmocollin 3 Flow Cytometry (Intracellular) staining using rabbit Anti-Desmocollin 3 antibody

This data was developed using ab126768, the same antibody clone in a different buffer formulation.
ab126768 at 1/10 dilution staining Desmocollin 3 in permeabilized A431 cells by intracellular flow cytometry (red) compared with a rabbit IgG negative control (green).



Western blot - Anti-Desmocollin 3 antibody [EPR7486] - BSA and Azide free (ab248176)

Desmocollin 3 Western blot staining using rabbit Anti-Desmocollin 3 antibody

This data was developed using ab126768, the same antibody clone in a different buffer formulation.
All lanes:
Western blot - Anti-Desmocollin 3 antibody [EPR7486] (ab126768) at 1/10000 dilution

Lane 1:
A431 cell lysate at 10 µg

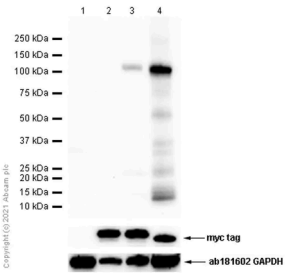
Lane 2:
Human skin lysate at 10 µg

Lane 3:
Human espophagus lysate at 10 µg

Secondary

All lanes:
Goat anti-Rabbit HRP at 1/2000 dilution

Predicted band size: 100 kDa



Western blot - Anti-Desmocollin 3 antibody [EPR7486] - BSA and Azide free (ab248176)

This data was developed using ab126768, the same antibody clone in a different buffer formulation.
Blocking and diluting buffer and concentration: 5% NFDM/TBST

All lanes:
Western blot - Anti-Desmocollin 3 antibody [EPR7486] (ab126768) at 1/200000 dilution

Lane 1:
Empty vector transfected 293T (Human embryonic kidney epithelial cell) whole cell lysate

Lane 2:
293T cells transfected with myc-his tagged full length Desmocollin-1 expression vector, whole cell lysate

Lane 3:
293T cells transfected with myc-his tagged full length Desmocollin-2 expression vector, whole cell lysate

Lane 4:
293T cells transfected with myc-his tagged full length Desmocollin-3 expression vector, whole cell lysate

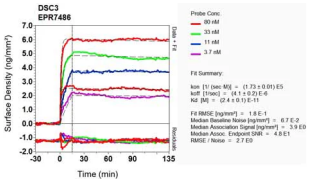
Secondary

All lanes:
Western blot - Goat Anti-Rabbit IgG H&L (HRP) (ab97051) at 1/20000 dilution

Predicted band size: 100 kDa

Observed band size: 100 kDa

Exposure time: 40s



OI-RD Scanning - Anti-Desmocollin 3 antibody [EPR7486] - BSA and Azide free (ab248176)

We have systematically measured KD (the equilibrium dissociation constant between the antibody and its antigen), of more than 840 recombinant antibodies to assess not only their individual KD values but also to see the average affinity of antibody. Based on the comparison with published literature values for mouse monoclonal antibodies, Recombinant antibodies appear to be on average 1-2 order of magnitude higher affinity.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.