Product Datasheet

Desmoglein-3 Antibody (5H10) - BSA Free
NBP1-78984

Unit Size: 0.1 ml

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

Reviews: 1 Publications: 8

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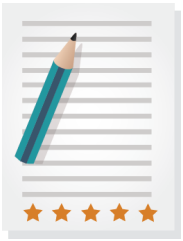
Updated 9/9/2025 v.20.1



NBP1-78984

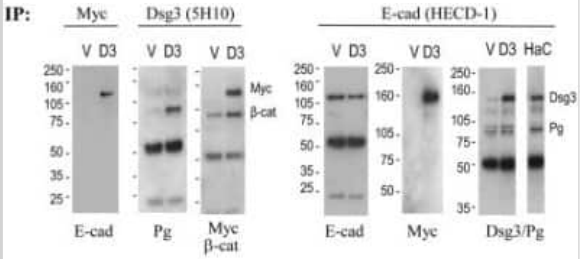
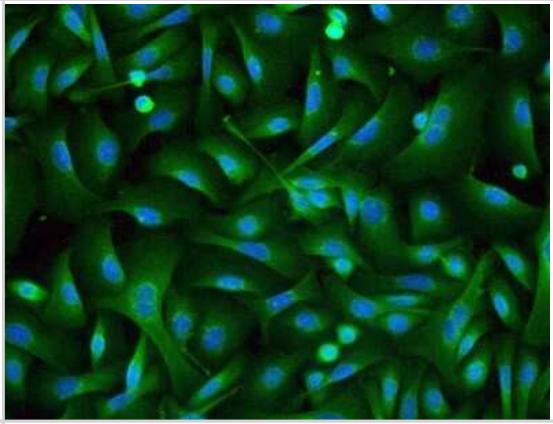
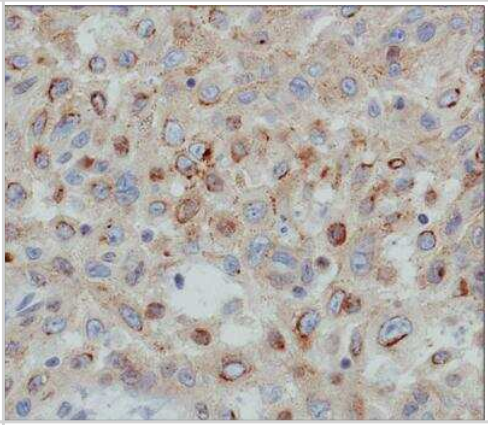
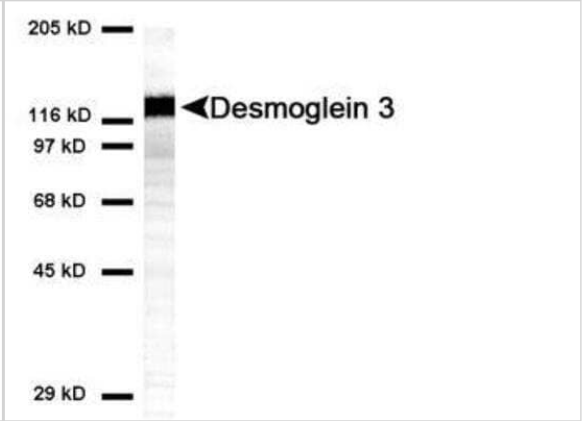
Desmoglein-3 Antibody (5H10) - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	5H10
Preservative	0.05% Sodium Azide
Isotype	IgG1
Purity	Protein G purified
Buffer	Tris-Glycine and 0.15M NaCl
Target Molecular Weight	130 kDa

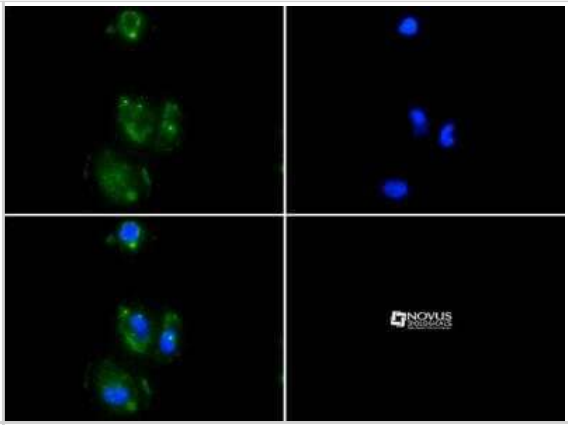
Product Description	
Description	Novus Biologicals Mouse Desmoglein-3 Antibody (5H10) - BSA Free (NBP1-78984) is a monoclonal antibody validated for use in IHC, WB, ICC/IF and IP. Anti-Desmoglein-3 Antibody: Cited in 8 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	1830
Gene Symbol	DSG3
Species	Human, Mouse
Immunogen	The extracellular domain of human Desmoglein 3 [Swiss-Prot# P32926]

Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Dot Blot, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunoprecipitation
Recommended Dilutions	Western Blot 1:1000, Immunohistochemistry 1:200, Immunocytochemistry/ Immunofluorescence 1:100, Immunoprecipitation 1:10-1:500, Immunohistochemistry-Paraffin 1:200, Dot Blot reported in scientific literature (PMID 15588331)
Application Notes	In Western blot, a band can be seen at approximately 130 kDa.

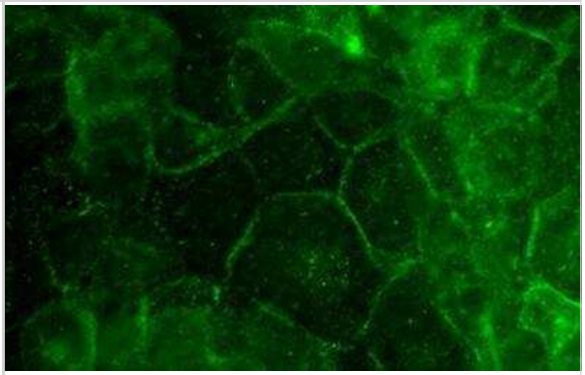
Images

Western Blot: Desmoglein-3 Antibody (5H10) [NBP1-78984] - Colocalisation of Dsg3 with E-cadherin-catenin complex. Co-IPs demonstrated that both endogenous and exogenous Dsg3 interacted with the E-cadherin-catenin complex in A431 stable lines (the empty vector control (V) and hDsg3.myc (D3)) as well as in HaCaTs. When pulled down with antibodies against the myc tag or with a mouse Dsg3 Ab 5H10 and blotted for E-cadherin and beta-catenin, both proteins were detected in D3 and, to a lesser extent, in V. Conversely, when pulled down with E-cadherin Ab HECD-1 and blotted for Dsg3 or the myc tag and Pg, these proteins were detected in both V and D3 cells. Note that this result also was confirmed in HaCaTs (HaC) where Dsg3 was expressed endogenously (far right blot). Image collected and cropped by CiteAb from the following publication (https://dx.plos.org/10.1371/journal.pone.0014211), licensed under a CC-BY license.	
Immunocytochemistry/Immunofluorescence: Desmoglein-3 Antibody (5H10) [NBP1-78984] - The cultured primary mouse skin keratinocytes were stained at 1:150. The image shows the cytosolic staining. This image was submitted via customer review.	
Immunohistochemistry: Desmoglein-3 Antibody (5H10) [NBP1-78984] - Analysis of Desmoglein 3 on human skin cancer using NBP1-78984.	
Western Blot: Desmoglein-3 Antibody (5H10) [NBP1-78984] - Analysis of Desmoglein 3 expression in HaCat cell lysate using NBP1-78984.	

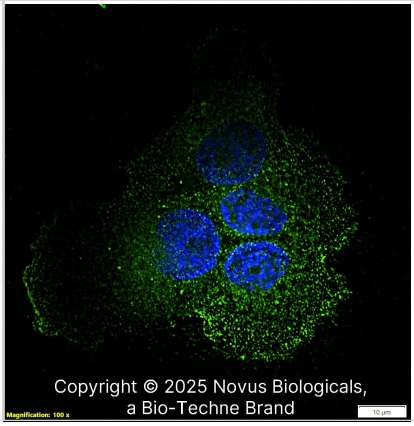
Immunocytochemistry/Immunofluorescence: Desmoglein-3 Antibody (5H10) [NBP1-78984] - Desmoglein 3 (5H10) antibody was tested in A431 cells with FITC (green). Nuclei were counterstained with Dapi (blue).



Immunocytochemistry/Immunofluorescence: Desmoglein-3 Antibody (5H10) [NBP1-78984] - Desmoglein 3 (5H10) antibody was tested in oral HNSCC cells fixed with 1% formaldehyde permeabilized in 0.1% Triton X-100.



Desmoglein-3 Antibody (5H10) was detected in immersion fixed A431 human skin carcinoma cell line using Mouse anti-Desmoglein-3 Antibody (5H10) Protein G Purified Monoclonal Antibody conjugated to Alexa Fluor® 488 (Catalog # NBP1-78984AF488) (green) at 10 µg/mL overnight at 4C. Cells were counterstained with DAPI (blue). Cells were imaged using a 100X objective and digitally deconvolved.



Publications

Assaf S, Vodo D, Malovitski K et al. Up-regulation of ST18 in pemphigus vulgaris drives a self-amplifying p53-dependent pathomechanism resulting in decreased desmoglein 3 expression Scientific reports 2022-04-08 [PMID: 35396567]

Walter E, Vielmuth F, Rotkopf L et al. Different signaling patterns contribute to loss of keratinocyte cohesion dependent on autoantibody profile in pemphigus. Sci Rep. 2017-06-15 [PMID: 28620161] (WB, Human)

Mahoney MG, Hu Y, Brennan D, Bazzi H, Christiano AM, Wahl JK 3rd. Delineation of diversified desmoglein distribution in stratified squamous epithelia: implications in diseases. Exp Dermatol. 15(2):101-9. 2006-02-01 [PMID: 16433681] (IP, WB, Human)

Wahl JK 3rd. Generation of monoclonal antibodies specific for desmoglein family members. Hybrid Hybridomics. 21 (1):37-44. 2002-02-01 [PMID: 11991815] (WB, ICC/IF, IP)

Proby CM, Ota T, Suzuki H, Koyasu S, Gamou S, Shimizu N, Wahl JK, Wheelock MJ, Nishikawa T, Amagai M. Development of chimeric molecules for recognition and targeting of antigen-specific B cells in pemphigus vulgaris. Br J Dermatol. 142(2):321-30. 2000-02-01 [PMID: 10730768] (WB, Human)

Tsang SM, Liu L, Teh MT, Wheeler A, Grose R, Hart IR, Garrod DR, Fortune F, Wan H. Desmoglein 3, via an interaction with E-cadherin, is associated with activation of Src. PLoS One. 5(12):e14211. 2010-12-03 [PMID: 21151980] (WB, ICC/IF, Human)

Weiske J, Schoneberg T, Schroder W, Hatzfeld M, Tauber R, Huber O. The fate of desmosomal proteins in apoptotic cells. J Biol Chem. 276(44):41175-81. 2001-11-02 [PMID: 11500511] (ICC/IF, IP, WB, Human)

Lucchese A, Mittelman A, Lin MS, Kanduc D, Sinha AA. Epitope definition by proteomic similarity analysis: identification of the linear determinant of the anti-Dsg3 MAb 5H10. J Transl Med. 2(1):43. 2004-12-11 [PMID: 15588331] (Cytometric Bead Assay Standard, Human)

Procedures

Immunohistochemistry-Paraffin Embedded Sections Protocol Specific for Desmoglein 3 Antibody (5H10) [NBP1-78984]

Immunohistochemistry-Paraffin Embedded Sections
Antigen Unmasking:
Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes.
Staining:
1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in wash buffer for 5 minutes.
3. Block each section with 100-400 ul blocking solution for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul biotinylated diluted secondary antibody. Incubate 30 minutes at room temperature.
7. Remove secondary antibody solution and wash sections three times with wash buffer for 5 minutes each.
8. Add 100-400 ul Streptavidin-HRP reagent to each section and incubate for 30 minutes at room temperature.
9. Wash sections three times in wash buffer for 5 minutes each.
10. Add 100-400 ul DAB substrate to each section and monitor staining closely.
11. As soon as the sections develop, immerse slides in deionized water.
12. Counterstain sections in hematoxylin.
13. Wash sections in deionized water two times for 5 minutes each.
14. Dehydrate sections.
15. Mount coverslips.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures."

Immunocytochemistry/Immunofluorescence Protocol for Desmoglein 3 Antibody (NBP1-78984)

Immunocytochemistry Protocol

Culture cells to appropriate density in 35 mm culture dishes or 6-well plates.
1. Remove culture medium and add 10% formalin to the dish. Fix at room temperature for 30 minutes.
2. Remove the formalin and add ice cold methanol. Incubate for 5-10 minutes.
3. Remove methanol and add washing solution (i.e. PBS). Be sure to not let the specimen dry out. Wash three times for 10 minutes.
4. To block nonspecific antibody binding incubate in 10% normal goat serum from 1 hour to overnight at room temperature.
5. Add primary antibody at appropriate dilution and incubate at room temperature from 2 hours to overnight at room temperature.
6. Remove primary antibody and replace with washing solution. Wash three times for 10 minutes.
7. Add secondary antibody at appropriate dilution. Incubate for 1 hour at room temperature.
8. Remove antibody and replace with wash solution, then wash for 10 minutes. Add Hoechst 33258 to wash solution at 1:25,0000 and incubate for 10 minutes. Wash a third time for 10 minutes.
9. Cells can be viewed directly after washing. The plates can also be stored in PBS containing Azide covered in Parafilm (TM). Cells can also be cover-slipped using Fluoromount, with appropriate sealing.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures."

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NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
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NBP1-97005-0.5mg	Mouse IgG1 Isotype Control (MG1)

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