Product Datasheet

Cytokeratin 1 Antibody (LHK1) - BSA Free
NB100-2756

Unit Size: 0.1 ml

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

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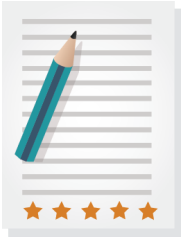
Publications: 17

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NB100-2756

Updated 9/9/2025 v.20.1



NB100-2756

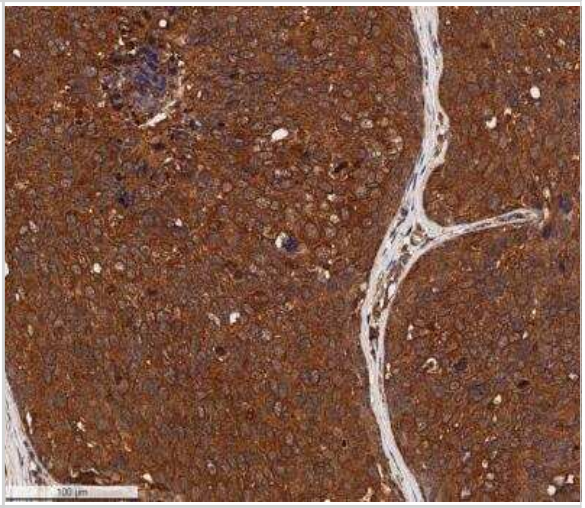
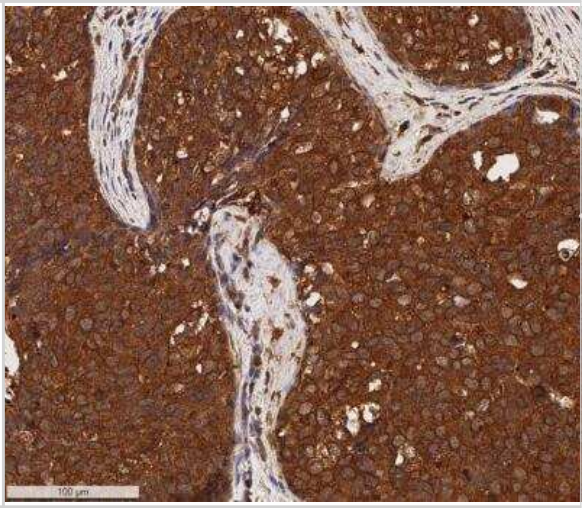
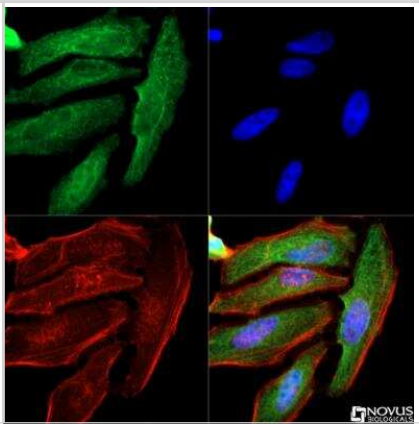
Cytokeratin 1 Antibody (LHK1) - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Monoclonal
Clone	LHK1
Preservative	0.02% Sodium Azide
Isotype	IgG2a Kappa
Purity	Protein G purified
Buffer	PBS
Target Molecular Weight	67 kDa

Product Description	
Description	Novus Biologicals Mouse Cytokeratin 1 Antibody (LHK1) - BSA Free (NB100-2756) is a monoclonal antibody validated for use in IHC, WB and ICC/IF. Anti-Cytokeratin 1 Antibody: Cited in 16 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Mouse
Gene ID	3848
Gene Symbol	KRT1
Species	Human, Rat
Immunogen	C-terminal peptide sequence of human Cytokeratin 1 [UniProt# P04264]

Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen
Recommended Dilutions	Western Blot 0.5-2 ug/ml, Immunohistochemistry 2-10 ug/ml, Immunocytochemistry/ Immunofluorescence 5 ug/ml, Immunohistochemistry-Paraffin 2-5 ug/ml, Immunohistochemistry-Frozen 5-10 ug/ml
Application Notes	This Cytokeratin 1 antibody is useful for Immunocytochemistry/Immunofluorescence, Immunohistochemistry-frozen sections, Immunohistochemistry-paraffin sections and Western blot.

Images

Immunohistochemistry-Paraffin: Cytokeratin 1 Antibody (LHK1) [NB100-2756] - IHC analysis of a formalin fixed paraffin-embedded (FFPE) human breast cancer using 5ug/ml conc. of Cytokeratin 1 antibody (clone LHK1) on a Bond Rx autostainer (Leica Biosystems). The assay involved 20 minutes of heat induced antigen retrieval (HIER) using 10mM sodium citrate buffer (pH 6.0) and endogenous peroxidase quenching with peroxide block. The sections were incubated with primary antibody for 30 minutes and Bond Polymer Refine Detection (Leica Biosystems) with DAB was used for signal development followed by counterstaining with hematoxylin. Whole slide scanning and capturing of representative images (20X) was performed using Aperio AT2 (Leica Biosystems). A membrane-cytoplasmic staining of Cytokeratin 1 was observed in the cancer cells with signal localized more to the cell membranes. Tumor cores showed a decreased staining and tumor stroma was mostly negative for Cytokeratin 1.	
Immunohistochemistry-Paraffin: Cytokeratin 1 Antibody (LHK1) [NB100-2756] - IHC analysis of a formalin fixed paraffin-embedded (FFPE) human breast cancer using 5ug/ml conc. of Cytokeratin 1 antibody (clone LHK1) on a Bond Rx autostainer (Leica Biosystems). The assay involved 20 minutes of heat induced antigen retrieval (HIER) using 10mM sodium citrate buffer (pH 6.0) and endogenous peroxidase quenching with peroxide block. The sections were incubated with primary antibody for 30 minutes and Bond Polymer Refine Detection (Leica Biosystems) with DAB was used for signal development followed by counterstaining with hematoxylin. Whole slide scanning and capturing of representative images (20X) was performed using Aperio AT2 (Leica Biosystems). A membrane-cytoplasmic staining of Cytokeratin 1 was observed in the cancer cells with signal localized more to the cell membranes. Tumor stroma was mostly negative for Cytokeratin 1. Staining was performed by Histowiz.	
Western Blot: Cytokeratin 1 Antibody (LHK1) [NB100-2756] - Analysis of Cytokeratin 1 in Caco-2.	
Immunocytochemistry/Immunofluorescence: Cytokeratin 1 Antibody (LHK1) [NB100-2756] - Cytokeratin 1 antibody (LHK1) was tested in HeLa cells with DyLight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red).	

Publications

Nanes BA, Bhatt K, Azarova E, Rajendran D et Al. Shifts in keratin isoform expression activate motility signals during wound healing Dev Cell 2024-07-13 [PMID: 39002537]

Stefano Piazza, Giulia Martinelli, Nicole Maranta, Carola Pozzoli, Marco Fumagalli, Vincenzo Nicolaci, Elisa Sonzogni, Luca Colombo, Enrico Sangiovanni, Mario Dell'Agli, Young Bok Lee Investigation into the Anti-Acne Effects of Castanea sativa Mill Leaf and Its Pure Ellagitannin Castalagin in HaCaT Cells Infected with Cutibacterium acnes International Journal of Molecular Sciences 2024-04-27 [PMID: 38731983]

Piazza S, Martinelli G, Magnavacca A et al. Unveiling the Ability of Witch Hazel (Hamamelis virginiana L.) Bark Extract to Impair Keratinocyte Inflammatory Cascade Typical of Atopic Eczema International journal of molecular sciences 2022-08-17 [PMID: 36012541] (ICC/IF, Human)

Details:
Dilution used 2 ug/ml

Handajani J, Tabtila U, Yunita Se Effect of Contraception on the Expression of CytokeRatin 1 in Epithelial Cells of the Palatal Mucosa and Salivary Estrogen jidmr.com 2021-01-01

Iljas J, J. R, J.A. M et al. A human skin equivalent burn model to study the effect of a nanocrystalline silver dressing on wound healing Burns 2020-07-01 [PMID: 32830005] (IHC-P, Human)

Li X, Tang M, Zhu Q et al. The exosomal integrin alpha5beta1/AEP complex derived from epithelial ovarian cancer cells promotes peritoneal metastasis through regulating mesothelial cell proliferation and migration Cell Oncol (Dordr) 2020-02-21 [PMID: 32080801] (IF/IHC, Human)

Kim HJ, Lee E, Lee M et al. Phosphodiesterase 4B plays a role in benzophenone-3-induced phototoxicity in normal human keratinocytes Toxicol. Appl. Pharmacol. 2017-11-25 [PMID: 29183759] (IF/IHC, Human)

Arita S, Hatta M, Uchida K et al. Peptidylarginine deiminase is involved in maintaining the cornified oral mucosa of rats. J. Periodont. Res. 2018-04-23 [PMID: 29687476] (Rat)

McGovern JA, Meinert C, de Veer SJ et al. Attenuated kallikrein-related peptidase activity disrupts desquamation and leads to stratum corneum thickening in human skin equivalent models. Br J Dermatol 2016-07-21 [PMID: 27442805]

Ha D, Bing SJ, Ahn G et al. Blocking Glutamate Carboxypeptidase II Inhibits Glutamate Excitotoxicity and Regulates Immune Responses in Experimental Autoimmune Encephalomyelitis FEBS J. 2016-07-22 [PMID: 27444540] (IF/IHC, Human)

Hartmann-Fritsch F, Biedermann T, Braziulis E et al. A new model for preclinical testing of dermal substitutes for human skin reconstruction. Pediatr Surg Int 2013-02-01 [PMID: 23371301] (IHC-P, ICC/IF, Human, Rat)

Gannon OM, Merida de Long L, Endo-Munoz L et al. Dysregulation of the Repressive H3K27 Trimethylation Mark in Head and Neck Squamous Cell Carcinoma Contributes to Dysregulated Squamous Differentiation. Clin Cancer Res 2013-01-15 [PMID: 23186778] (IHC-P, ICC/IF, Human)

More publications at http://www.novusbio.com/NB100-2756

Procedures

Western blot Protocol for Cytokeratin 1 Antibody (LHK1) (NB100-2756)

Western Blot Protocol
1. Perform SDS-PAGE on samples to be analyzed, loading 30 ug of total protein per lane.
2. Transfer proteins to membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain according to standard Ponceau S procedure (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot.
5. Block the membrane using standard blocking buffer for at least 1 hour.
6. Wash the membrane in wash buffer three times for 10 minutes each.
7. Dilute mouse anti-Cytokeratin 1 primary antibody in blocking buffer and incubate 1 hour at room temperature.
8. Wash the membrane in wash buffer three times for 10 minutes each.
9. Apply the diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions.
Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%.

ICC/IF Protocol for Cytokeratin 1 Antibody (LHK1) (NB100-2756)

Immunocytochemistry Protocol

Culture cells to appropriate density on suitable glass coverslips 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 5-10 minutes.
2. Remove the formalin and add 0.5% Triton-X 100 in TBS to permeabilize the cells. Incubate for 5-10 minutes.
3. Remove the permeabilization buffer and add wash buffer (i.e. PBS or PBS with 0.1% Tween-20). Be sure to not let the specimen dry out. Gently wash three times for 10 minutes.
4. Alternatively, cells can be fixed with -20C methanol for 10 min at room temperature. Remove the methanol and rehydrate in PBS for 10 min before proceeding.
5. To block nonspecific antibody binding incubate in 10% normal goat serum for 1 hour at room temperature.
6. Add primary antibody at appropriate dilution and incubate at room temperature for 1 hour or at 4 degrees C overnight.
7. Remove primary antibody and replace with wash buffer. Gently wash three times for 10 minutes.
8. Add secondary antibody at the appropriate dilution. Incubate for 1 hour at room temperature.
9. Remove antibody and replace with wash buffer. Gently wash three times for 10 minutes.
10. Nuclei can be staining with 4',6' diamino phenylindole (DAPI) at 0.1 ug/ml, or coverslips can be directly mounted in media containing DAPI.
11. Cells can now be viewed with a fluorescence microscope.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow proper laboratory procedures for the disposal of formalin.

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Products Related to NB100-2756

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB7539	Goat anti-Mouse IgG (H+L) Secondary Antibody [HRP]
NBP1-96981-0.5mg	Mouse IgG2a Kappa Isotype Control (M2AK)

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This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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