Product Datasheet

GLI-1 Antibody - BSA Free

NB600-600

Unit Size: 0.1 ml

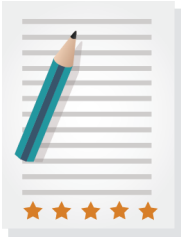
Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

www.novusbio.com technical@novusbio.com

Reviews: 1 Publications: 55

Protocols, Publications, Related Products, Reviews, Research Tools and Images at:
www.novusbio.com/NB600-600

Updated 10/23/2024 v.20.1



NB600-600

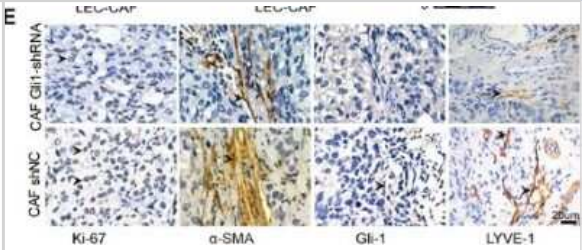
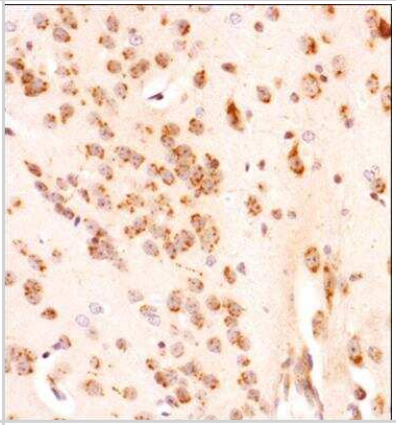
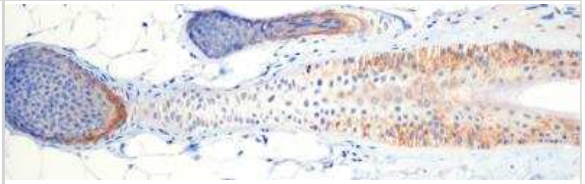
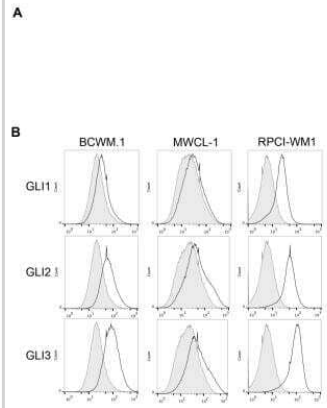
GLI-1 Antibody - BSA Free

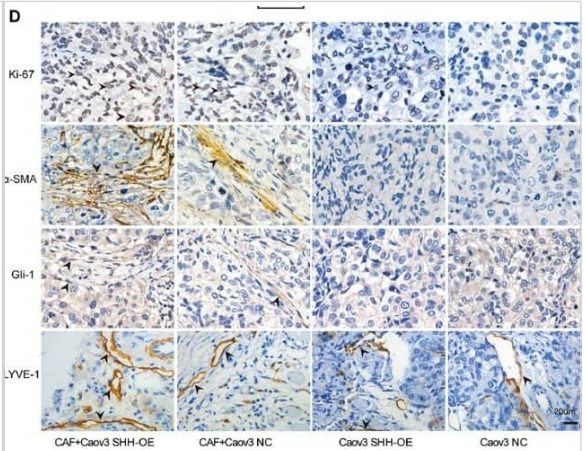
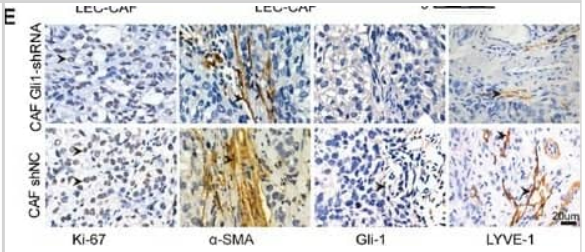
Product Information	
Unit Size	0.1 ml
Concentration	1 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS

Product Description	
Host	Rabbit
Gene ID	2735
Gene Symbol	GLI1
Species	Human, Mouse, Canine
Reactivity Notes	Canine reactivity reported from a verified customer review.
Specificity/Sensitivity	No reaction occurs with human or mouse Gli2 or Gli3.
Immunogen	A synthetic peptide made toward the C-terminus portion of the human GLI-1 protein (between residues 800-850) [Uniprot: P08151]

Product Application Details	
Applications	Western Blot, ELISA, Flow (Intracellular), Immunoblotting, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Chromatin Immunoprecipitation (ChIP), Knockdown Validated
Recommended Dilutions	Western Blot 1 - 2 ug/ml, ELISA 1:500 - 1:2000, Immunohistochemistry 1:200, Immunocytochemistry/ Immunofluorescence 1 ug/ml, Immunohistochemistry-Paraffin 1:200, Immunoblotting 1 - 2 ug/ml, Flow (Intracellular) 1-2 ug/million cells, Chromatin Immunoprecipitation (ChIP) 1:10-1:500, Knockdown Validated
Application Notes	Use in ICC/IF reported in scientific literature (PMID:35226587) Prior to immunostaining paraffin tissues, antigen retrieval with sodium citrate buffer (pH 6.0) is recommended. Flow was reported in a customer review. IHC-P reported from a verified customer review. Use in immunoblotting reported in scientific literature (PMID: 28167297). Use in FLOW reported in scientific literature (PMID: 26238488)..

Images

Knockdown Validated: GLI-1 Antibody - BSA Free [NB600-600] - GLI-1 Antibody [NB600-600] - Inhibition of Hh signaling in CAFs blocks its effects on lymphangiogenesis in vivo and in vitro. (E) IHC staining for Ki-67, -SMA, Gli-1 and LYVE1 in tumour sections from mice in the two groups. Human CAFs promote lymphangiogenesis in ovarian cancer via the Hh-VEGF-C signaling axis. Image collected and cropped by CiteAb from the following publication (//pubmed.ncbi.nlm.nih.gov/31012844/) licensed under a CC-BY license.	
Immunohistochemistry-Paraffin: GLI-1 Antibody [NB600-600] - Analysis of a FFPE mouse brain section using GLI-1 antibody at 1:600 dilution.	
Immunohistochemistry-Paraffin: GLI-1 Antibody [NB600-600] - Staining in canine hair follicle. Image from a verified customer review.	
Flow (Intracellular): GLI-1 Antibody [NB600-600] - Staining for GLI-1 in untreated human B cell lines (BCWM.1, MWCL-1 and RPCI-WM1) using anti-GLI-1 antibody. Rabbit IgG Isotype Control (Cat# NBP2-36463) was used as a negative control. Image courtesy of Sherine Elsawa, Northern Illinois University.	

Immunohistochemistry-Paraffin: GLI-1 Antibody - BSA Free [NB600-600] - Paracrine signaling of tumour-derived SHH in CAFs promotes lymphangiogenesis in vivo(A) Growth properties of subcutaneous tumours in mice derived from Caov3 SHH-OE or Caov3 NC cells alone or co-injected with CAFs. Kaplan-Meier plot of time to tumour progression, as evidenced by survival rates over time (n=5). (B) Bright field images of subcutaneous tumours from each group (n=5) 20 days after tumour implantation. (C) Graphical representation of the weights of subcutaneous tumours from each group 20 days after tumour implantation. (D) Immunohistochemical staining for Ki-67, α-SMA, Gli-1 & LYVE1 in tumour sections from mice in each group. (E) Graphical representation of the number of LYVE1+ vessels counted from IHC images in panel D. (*P<0.05, **P<0.01, ***P<0.001). Image collected & cropped by CiteAb from the following publication (https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.18621), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	
Immunohistochemistry-Paraffin: GLI-1 Antibody - BSA Free [NB600-600] - Inhibition of Hh signaling in CAFs blocks its effects on lymphangiogenesis in vivo & in vitro(A) Representative images & statistical analyses of migration of LECs in a co-culture invasion system with CAFs stably transfected with shNC or Gli-shRNA lentivirus in the presence of rSHH (1 μg/ml). (B) Representative images & statistical analyses of capillary tube formation of LECs treated with supernatants from cultures of CAFs stably transfected with shNC or Gli-shRNA lentivirus in the presence of rSHH (1 μg/ml). (C) Bright field images & graphical representation of the weights of tumours of subcutaneous tumours from mice (n=5) bearing Caov3 SHH-OE cells co-injected with CAFs stably transfected with shNC or Gli-shRNA lentivirus 20 days after tumour implantation. (D) Growth properties of subcutaneous tumours in mice derived from Caov3 SHH-OE cells co-injected with CAFs stably transfected with shNC or Gli-shRNA lentivirus. Kaplan-Meier plot of time to tumour progression, as evidenced by survival rates over time. (E) IHC staining for Ki-67, α-SMA, Gli-1 & LYVE1 in tumour sections from mice in the two groups. (F) Graphical representation of the number of LYVE1+ vessels counted from IHC images in panel E. (**P<0.01, ***P<0.001). Image collected & cropped by CiteAb from the following publication (https://www.oncotarget.com/lookup/doi/10.18632/oncotarget.18621), licensed under a CC-BY license. Not internally tested by Novus Biologicals.	

Publications

Qian Wang, Shengnan Jia, Ding Wang, Xuyang Chen, Dhan V Kalvakolanu, Hongwu Zheng, Xiaodong Wei, Naiyan Wen, Hang Liang, Baofeng Guo, Ling Zhang A Combination of BRD4 and HDAC3 Inhibitors Synergistically Suppresses Glioma Stem Cell Growth by Blocking GLI1/IL6/STAT3 Signaling Axis. Molecular cancer therapeutics 2021-08-12 [PMID: 32999044]

Matko Leović, Antonija Jakovčević, Ivan Mumlek, Irena Zagorac, Maja Sabol, Dinko Leović, Marko Tarle A Pilot Immunohistochemical Study Identifies Hedgehog Pathway Expression in Sinonasal Adenocarcinoma International Journal of Molecular Sciences 2024-04-24 [PMID: 38731849]

Bo Ram Kim, Dae Yeong Kim, Na Ly Tran, Bu Gyeom Kim, Sun Il Lee, Sang Hee Kang, Byung Yook Min, Wooyoung Hur, Sang Cheul Oh Daunorubicin induces GLI1-dependent apoptosis in colorectal cancer cell lines International Journal of Oncology 2024-06-01 [PMID: 38757343]

Hong Zhou, Qun Zhang, Chenyang Liu, Jiahao Fan, Wen Huang, Nan Li, Mingxia Yang, Hong Wang, Weiping Xie, Hui Kong NLRP3 inflammasome mediates abnormal epithelial regeneration and distal lung remodeling in silica-induced lung fibrosis International Journal of Molecular Medicine 2024-03-01 [PMID: 38240085]

Evelyn Susanto, Ana Marin Navarro, Leilei Zhou, Anders Sundström, Niek van Bree, Marina Stantic, Mohsen Moslem, Jignesh Tailor, Jonne Rietdijk, Veronica Zubillaga, Jens-Martin Hübner, Holger Weishaupt, Johanna Wolfsberger, Irina Alafuzoff, Ann Nordgren, Thierry Magnaldo, Peter Siesjö, John Inge Johnsen, Marcel Kool, Kristiina Tammimies, Anna Darabi, Fredrik J. Swartling, Anna Falk, Margareta Wilhelm Modeling SHH-driven medulloblastoma with patient iPS cell-derived neural stem cells Proceedings of the National Academy of Sciences of the United States of America 2020-08-18 [PMID: 32747535]

Koo H, Lee S, Kim WH Usability of serum hedgehog signalling proteins as biomarkers in canine mammary carcinomas BMC veterinary research 2023-11-06 [PMID: 37932728] (WB, Canine)

Wang M, Huang W FOXS1 promotes prostate cancer progression through the Hedgehog/Gli1 pathway Biochemical pharmacology 2023-10-27 [PMID: 37890593]

Liu Y, Liu S, Song Z et al. GLI1 Deficiency Impairs the Tendon-Bone Healing after Anterior Cruciate Ligament Reconstruction: In Vivo Study Using Gli1-Transgenic Mice Journal of Clinical Medicine 2023-01-28 [PMID: 36769647] (Immunohistochemistry)

Orzechowska-Licari EJ, Bialkowska AB, Yang VW Sonic Hedgehog and WNT signaling regulate a positive feedback loop between intestinal epithelial and stromal cells to promote epithelial regeneration Cellular and molecular gastroenterology and hepatology 2023-07-20 [PMID: 37481204] (WB, Mouse)

Details:
1:400 WB dilution

Almada LL, Barroso K, Sen S et al. GLI1, a novel target of the ER stress regulator p97/VCP, promotes ATF6f-mediated activation of XBP1 Biochimica et biophysica acta. Gene regulatory mechanisms 2023-02-24 [PMID: 36842643] (ChIP)

Vera RE, Lamberti MJ, Almada LL et al. GLI1 interaction with p300 modulates SDF1 expression in cancer-associated fibroblasts to promote pancreatic cancer cells migration The Biochemical journal 2023-02-15 [PMID: 36734208]

Yamakawa D, Tsuboi J, Kasahara K et al. Cilia-Mediated Insulin/Akt and ST2/JNK Signaling Pathways Regulate the Recovery of Muscle Injury Advanced science (Weinheim, Baden-Wurttemberg, Germany) 2022-11-14 [PMID: 36373718] (WB, Mouse)

Details:
Dilution used in WB 1:1000

More publications at http://www.novusbio.com/NB600-600

Procedures

Western Blot protocol specific for Gli1 antibody (NB600-600)

Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 40 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 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%.

Immunohistochemistry-Paraffin protocol for GLI-1 Antibody (NB600-600)

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.

Novus Biologicals USA
10730 E. Briarwood Avenue
Centennial, CO 80112
USA
Phone: 303.730.1950
Toll Free: 1.888.506.6887
Fax: 303.730.1966
nb-customerservice@bio-techne.com

Bio-Techne Canada
21 Canmotor Ave
Toronto, ON M8Z 4E6
Canada
Phone: 905.827.6400
Toll Free: 855.668.8722
Fax: 905.827.6402
canada.inquires@bio-techne.com

Bio-Techne Ltd
19 Barton Lane
Abingdon Science Park
Abingdon, OX14 3NB, United Kingdom
Phone: (44) (0) 1235 529449
Free Phone: 0800 37 34 15
Fax: (44) (0) 1235 533420
info.EMEA@bio-techne.com

General Contact Information
www.novusbio.com
Technical Support: nb-technical@bio-techne.com
Orders: nb-customerservice@bio-techne.com
General: novus@novusbio.com

Products Related to NB600-600

NBL1-11109	GLI-1 Overexpression Lysate
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

Limitations

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.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

Earn gift cards/discounts by submitting a review: www.novusbio.com/reviews/submit/NB600-600

Earn gift cards/discounts by submitting a publication using this product: www.novusbio.com/publications