Product Datasheet

GAP-43 Antibody - BSA Free
NBP1-41123

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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Reviews: 1 Publications: 33

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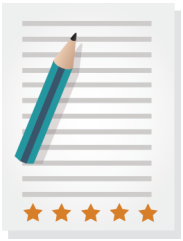
Updated 9/9/2025 v.20.1



NBP1-41123

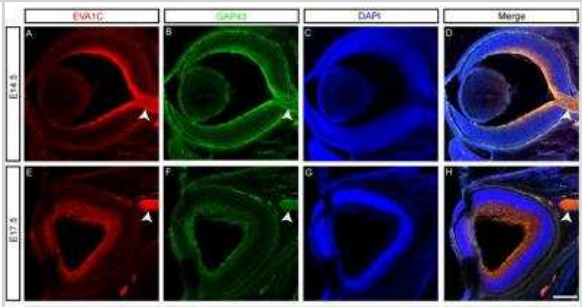
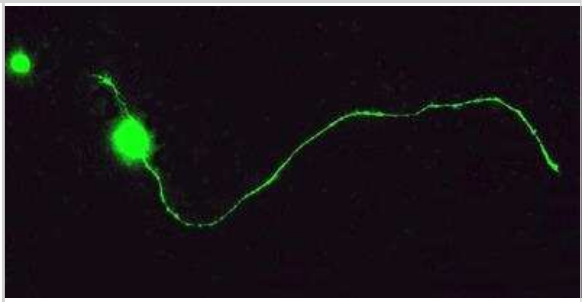
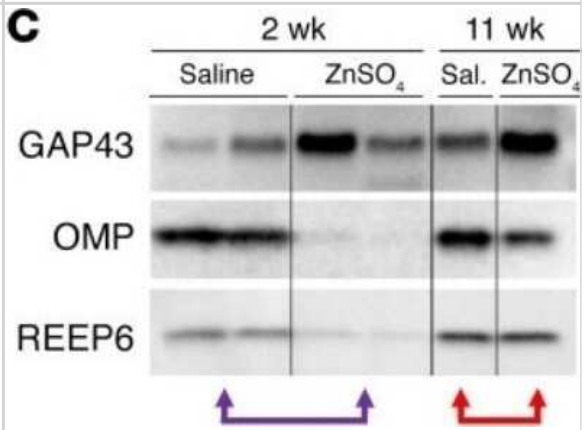
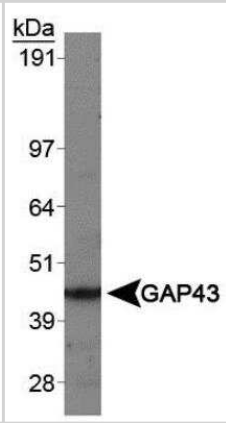
GAP-43 Antibody - BSA Free

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	Polyclonal
Preservative	0.02% Sodium Azide
Isotype	IgG
Purity	Protein G purified
Buffer	PBS
Target Molecular Weight	45 kDa

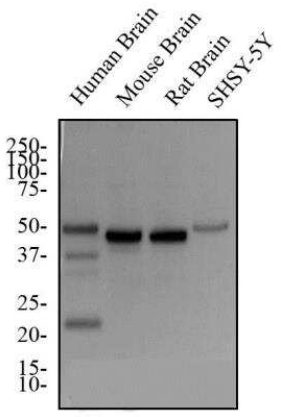
Product Description	
Description	Novus Biologicals Sheep GAP-43 Antibody - BSA Free (NBP1-41123) is a polyclonal antibody validated for use in IHC, WB and ICC/IF. Anti-GAP-43 Antibody: Cited in 32 publications. All Novus Biologicals antibodies are covered by our 100% guarantee.
Host	Sheep
Gene ID	2596
Gene Symbol	GAP43
Species	Human, Mouse, Rat, Canine, Feline, Hamster, Primate
Marker	Neuronal Marker
Immunogen	GAP-43 from rat brain [Uniprot: P07936]

Product Application Details	
Applications	Western Blot, Immunohistochemistry-Paraffin, Immunoblotting, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen
Recommended Dilutions	Western Blot 1:1000, Immunohistochemistry 1:400-1:1000, Immunocytochemistry/ Immunofluorescence 1:50-1:1000, Immunohistochemistry-Paraffin reported in scientific literature (PMID 24686445), Immunohistochemistry-Frozen 1:400-1:1000, Immunoblotting reported in scientific literature (PMID 28112682)
Application Notes	In Western blot, a band can be seen at 43-48 kDa.

Images

Immunohistochemistry: GAP-43 Antibody [NBP1-41123] - Coronal sections of the developing (A-H) eye at (A-D) E14.5, (E-H) E17.5. were immunostained for (A-H) EVA1C and (A-H) GAP43. All sections were counterstained with DAPI. EVA1C was strongly co-expressed with GAP43 by retinal cell ganglionic axons (A-H) as they exit the retina and form the optic nerve (arrowheads). Scale bars represent 100 uM. PLoS One. 2013 Sep 9;8(9):e74115. doi: 10.1371/journal.pone.0074115.	
Immunocytochemistry/Immunofluorescence: GAP-43 Antibody [NBP1-41123] - Staining of a mature retinal ganglion cell demonstrating axon outgrowth.	
Western Blot: GAP-43 Antibody [NBP1-41123] - Longitudinal [11C]GV1-57 imaging monitors mature OSN regeneration. Immunoblotting of immature neurons (GAP-43), mature neurons (OMP), and sustentacular cells (REEP6) in septal OE tissue collected from animals 2 or 11 weeks after ZnSO4 or vehicle treatment. Red arrows indicate DVR values and the corresponding immunoblots of OE tissue collected from the same individual animals 11 weeks after treatment. Purple arrows indicate DVR values representative of [11C]GV1-57 imaging 2 weeks after treatment and corresponding immunoblots of OE tissue collected from a separate cohort of animals. n = 2 per group at 2 weeks after treatment; n = 1 per group at 11 weeks after treatment. Image collected and cropped by CiteAb from the following publication (https://www.jci.org/articles/view/89162), licensed under a CC-BY license.	
Western Blot: GAP-43 Antibody [NBP1-41123] - Analysis of GAP43 in human brain protein	

Western Blot: GAP-43 Antibody [NBP1-41123] - Total protein from Human, Mouse and Rat brain, and SHSY-5Y cells was separated on a 12% gel by SDS-PAGE, transferred to PVDF membrane and blocked in 5% non-fat milk in TBST. The membrane was probed with 2.0 ug/ml anti-GAP43 in 1% non-fat milk in TBST and detected with an anti-sheep HRP secondary antibody using chemiluminescence.



Publications

Li LK, Huang WC, Hsueh YY et al. Intramuscular delivery of neural crest stem cell spheroids enhances neuromuscular regeneration after denervation injury Stem Cell Research & Therapy 2022-05-16 [PMID: 35578348] (Western Blot, Immunohistochemistry-Frozen, Rat)

Singler K, Holm EA, Jackson T et al. European postgraduate training in geriatric medicine: data of a systematic international survey. Aging clinical and experimental research 2016-04-27 [PMID: 26219515]

Kiesswetter E, Sieber CC, Volkert D. Protein intake in older people : Why, how much and how? Zeitschrift fur Gerontologie und Geriatrie 2020-07-01 [PMID: 32291569]

Minjin Jeong, Karen E. Ocwieja, Dongjun Han, P. Ashley Wackym, Yichen Zhang, Alyssa Brown, Cynthia Moncada, Andrea Vambutas, Theodore Kanne, Rachel Crain, Noah Siegel, Valerie Leger, Felipe Santos, D. Bradley Welling, Lee Gehrke, Konstantina M. Stankovic Direct SARS-CoV-2 infection of the human inner ear may underlie COVID-19-associated audiovestibular dysfunction Communications Medicine 2021-10-29 [PMID: 34870285]

Ferreira A, Chambel SS, Avelino A, Cruz CD Spinal Cord Injury Causes Marked Tissue Rearrangement in the Urethra-Experimental Study in the Rat International journal of molecular sciences 2022-12-15 [PMID: 36555592] (IHC-P, Rat)

Details:
Dilution used in IHC-P 1:500

Yazdani A, Howidi B, Shi MZ Et al. Sildenafil improves hippocampal brain injuries and restores neuronal development after neonatal hypoxia-ischemia in male rat pups Scientific reports 2021-11-11 [PMID: 34764335] (WB, Rat)

Ghafouri-Azar R Therapeutic effects of sildenafil to repair cerebellar injury following neonatal hypoxia-ischemia Thesis 2021-01-01

Kong G, Zhou L, Serger E et al. AMPK controls the axonal regenerative ability of dorsal root ganglia sensory neurons after spinal cord injury Nat Metab 2020-08-10 [PMID: 32778834] (Mouse)

Kaplan A, Morquette B, Kroner A et al. Small-Molecule Stabilization of 14-3-3 Protein-Protein Interactions Stimulates Axon Regeneration. Neuron. 2017-03-08 [PMID: 28279353]

Van de Bittner GC, Riley MM, Cao L et al. Nasal neuron PET imaging quantifies neuron generation and degeneration J. Clin. Invest 2017-01-23 [PMID: 28112682] (IB, Rat)

Puttagunta R, Tedeschi A, Soria MG et al. PCAF-dependent epigenetic changes promote axonal regeneration in the central nervous system. Nat Commun 2014-04-01 [PMID: 24686445] (IHC-P, Mouse)

James G, Foster SR, Key B, Beverdam A. The Expression Pattern of EVA1C, a Novel Slit Receptor, Is Consistent with an Axon Guidance Role in the Mouse Nervous System. PLoS One. 2013-09-09 [PMID: 24040182] (IHC-Fr, ICC/IF, Mouse)

More publications at http://www.novusbio.com/NBP1-41123

Procedures

Protocol specific for GAP43 Antibody - Neuronal Marker (NBP1-41123)

Western Blot Protocol
1. Perform SDS-PAGE (4-12% MOPS) on samples to be analyzed, loading 25 ug of total protein per lane.
2. Transfer proteins to Nitrocellulose according to the instructions provided by the manufacturer of the transfer apparatus.
3. Rinse membrane with dH2O and then stain the blot using Ponceau S for 1-2 minutes to access the transfer of proteins onto the nitrocellulose membrane. Rinse the blot in water to remove excess stain and mark the lane locations and locations of molecular weight markers using a pencil.
4. Rinse the blot in TBS for approximately 5 minutes.
5. Block the membrane using 5% NFDM + 1% BSA in TBS + Tween, 1 hour at RT.
6. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
7. Dilute the anti-GAP43 primary antibody (NBP1-41123) in blocking buffer and incubate 1 hour at room temperature.
8. Rinse the membrane in dH2O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
9. Apply the diluted sheep-IgG 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 [TBS + 0.1% Tween] 3 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 (Pierce ECL).
Note: Tween-20 can be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%, provided it does not interfere with antibody-antigen binding.

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Products Related to NBP1-41123

NBP2-33376H	Blue Marker Antibody (6F4-F6) [HRP]
HAF016	Donkey anti-Sheep IgG Secondary Antibody [HRP]
NL010	Donkey anti-Sheep IgG Secondary Antibody [NL557]
NBP1-97055-10mg	Sheep 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.

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