

# Product Datasheet

## GFAP Antibody (GA-5) NBP2-29415

Unit Size: 0.1 mg

Store at 4C.

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[technical@novusbio.com](mailto:technical@novusbio.com)

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Updated 7/16/2024 v.20.1

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**NBP2-29415****GFAP Antibody (GA-5)**

<b>Product Information</b>	
<b>Unit Size</b>	0.1 mg
<b>Concentration</b>	0.2 mg/ml
<b>Storage</b>	Store at 4C.
<b>Clonality</b>	Monoclonal
<b>Clone</b>	GA-5
<b>Preservative</b>	0.05% Sodium Azide
<b>Isotype</b>	IgG1 Kappa
<b>Purity</b>	Protein A or G purified
<b>Buffer</b>	10 mM PBS with 0.05% BSA
<b>Target Molecular Weight</b>	50 kDa
<b>Product Description</b>	
<b>Description</b>	200ug/ml of antibody purified from Bioreactor Concentrate by Protein A or G. Prepared in 10 mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA & azide at 1.0 mg/ml. (NBP2-33184)  Antibody with azide - store at 2 to 8C. Antibody without azide - store at -20 to -80C.
<b>Host</b>	Mouse
<b>Gene ID</b>	2670
<b>Gene Symbol</b>	GFAP
<b>Species</b>	Human, Mouse, Rat, Porcine, Bovine, Chicken, Rabbit
<b>Marker</b>	Astrocyte & Neural Stem Cell Marker
<b>Specificity/Sensitivity</b>	This monoclonal antibody recognizes a protein of ~50kDa which is identified as Glial Fibrillary Acidic Protein (GFAP). It shows no cross-reaction with other intermediate filament proteins. GFAP is specifically found in astroglia. GFAP is a very popular marker for localizing benign astrocyte and neoplastic cells of glial origin in the central nervous system. Antibody to GFAP is useful in differentiating primary gliomas from metastatic lesions in the brain and for documenting astrocytic differentiation in tumors outside the CNS.
<b>Immunogen</b>	GFAP isolated from pig spinal cord (Uniprot: P14136)
<b>Product Application Details</b>	
<b>Applications</b>	Western Blot, Simple Western, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin
<b>Recommended Dilutions</b>	Western Blot 1-2 ug/ml, Simple Western 10 ug/mL, Flow Cytometry 1-2 ug/million cells, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1-2 ug/ml, Immunohistochemistry-Paraffin 1-2 ug/ml, Immunohistochemistry-Frozen 0.5 - 1 ug/mL

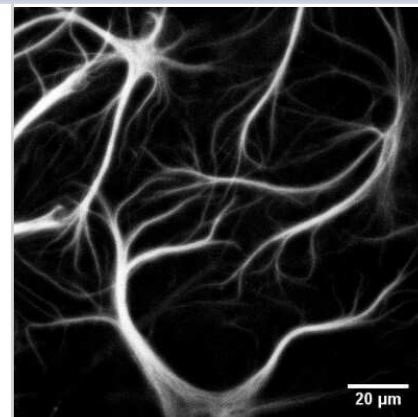
**Application Notes**

Immunohistochemistry (Formalin-fixed): 1-2 ug/mL for 30 minutes at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10 mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95C followed by cooling at RT for 20 minutes. Optimal dilution for a specific application should be determined.  
 Immunohistochemistry (cryosections): see Tobin et. al. for details.

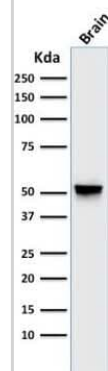
In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. Separated by Size.

**Images**

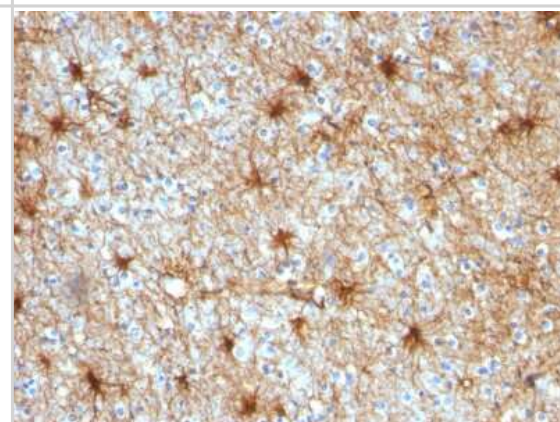
Immunocytochemistry/Immunofluorescence: GFAP Antibody (GA-5) [NBP2-29415] - Cultured Rat Hippocampal Neurons. ICC/IF image submitted by a verified customer review.



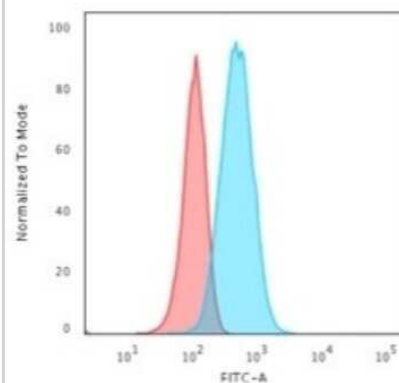
Western Blot: GFAP Antibody (GA-5) [NBP2-29415] - Western Blot Analysis of human brain tissue lysate using GFAP Antibody (GA-5).



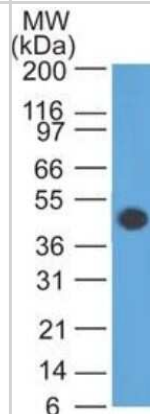
Immunohistochemistry-Paraffin: GFAP Antibody (GA-5) [NBP2-29415] - Formalin-fixed, paraffin-embedded human Cerebellum stained with GFAP Antibody (GA-5).



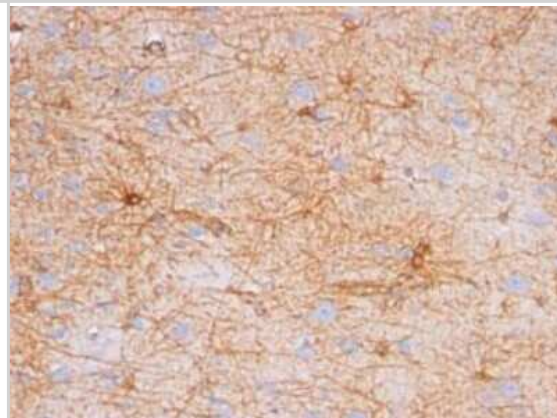
Flow Cytometry: GFAP Antibody (GA-5) [NBP2-29415] - Flow Cytometric Analysis of T98G cells using GFAP Antibody (GA-5) followed by Goat anti-Mouse IgG-CF488 (Blue); Isotype Control (Red).



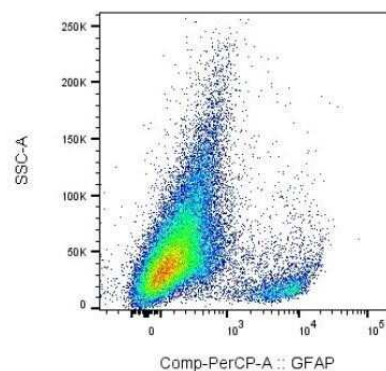
Western Blot: GFAP Antibody (GA-5) [NBP2-29415] - Analysis of GFAP in human brain lysate using GFAP (GA5) antibody at 1 ug/mL. Goat anti-mouse Ig HRP secondary antibody and PicoTect ECL substrate solution were used for this test.



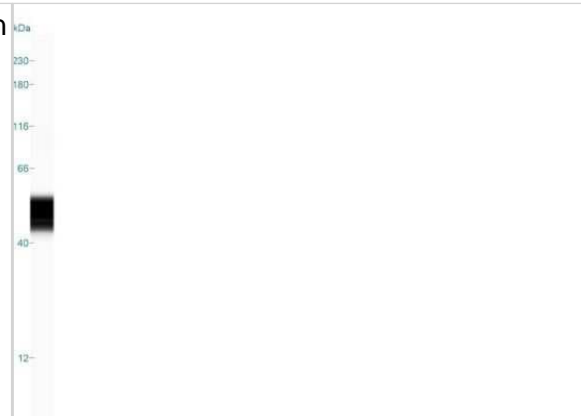
Immunohistochemistry-Paraffin: GFAP Antibody (GA-5) [NBP2-29415] - Formalin-paraffin human brain stained with GFAP Ab (GA-5). Note cytoplasmic staining.



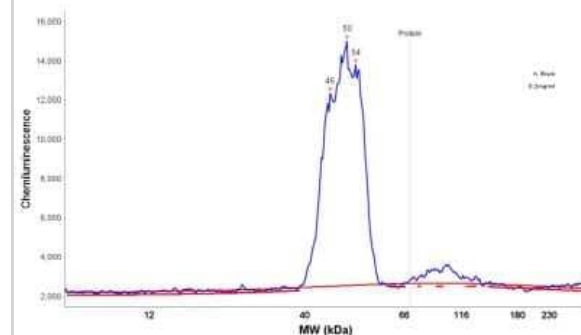
Flow Cytometry: GFAP Antibody (GA-5) [NBP2-29415] - Experimental autoimmune encephalomyelitis was induced in C57BL6/J mice, and mononuclear cells were isolated from the CNS at day 10 (onset of symptoms). Cells were stained for GFAP, Neun, CX3CL1, CXCL12, CCL2, CD45 and CD11b, plus for viability to exclude dead cells. GFAP staining is shown for viable cells. Flow cytometry image submitted by a verified customer review.



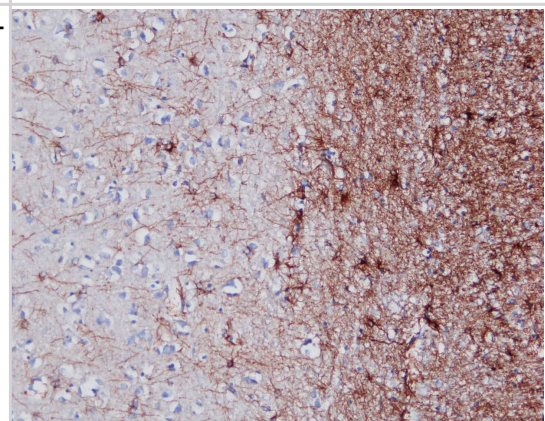
Simple Western: GFAP Antibody (GA-5) [NBP2-29415] - Simple Western lane view shows a specific band for GFAP in 0.2 mg/mL of human brain lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



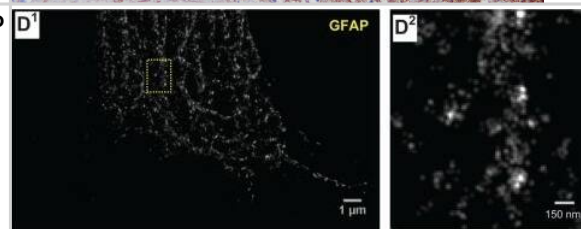
Simple Western: GFAP Antibody (GA-5) [NBP2-29415] - Electropherogram image of the corresponding Simple Western lane. GFAP antibody was used at 10 ug/mL dilution of human brain lysate.



Immunohistochemistry-Paraffin: Mouse Monoclonal GFAP Antibody (GA-5) [NBP2-29415] - Analysis of GFAP on adult human brain tissue. Antigen retrieval in a basic buffer x200 (1ug/mL). Image from a verified customer review.



Advancing super-resolution microscopy for astroglial research. (D) GFAP stained with monoclonal antibody (Novus, GA5, secondary Alexa Fluor 488 donkey anti-mouse antibody, Life Technologies) shown at lower (D1) and higher (D2, fragment indicated in D1) magnification. Image collected and cropped by CiteAb from the following publication (<https://pubmed.ncbi.nlm.nih.gov/25782611>), licensed under a CC-BY licence.



## Publications

Chen Y, Wu XL, Hu HB et al. Neuronal MeCP2 in the dentate gyrus regulates mossy fiber sprouting of mice with temporal lobe epilepsy *Neurobiology of disease* 2023-11-01 [PMID: 37931884] (IHC, Mouse)

### Details:

Dilution 1:2000

Hamilton HL, Kinscherf NA, Balmer G et al. FABP7 drives an inflammatory response in human astrocytes and is upregulated in Alzheimer's disease *GeroScience* 2023-09-09 [PMID: 37688656] (IHC-P, Mouse)

Johnson M, Bell A, Lauing KL et al. Advanced age in humans and mouse models of glioblastoma show decreased survival from extratumoral influence *Clinical cancer research : an official journal of the American Association for Cancer Research* 2023-09-19 [PMID: 37725593] (FLOW, Mouse)

Chomiak AA, Guo Y, Kopsidas CA et al. Nde1 is required for heterochromatin compaction and stability in neocortical neurons *iScience* 2022-06-17 [PMID: 35601919]

Pla L, Köhne BA, Guardia-Escote L et al. Protocols for the Evaluation of Neurodevelopmental Alterations in Rabbit Models In Vitro and In Vivo *Frontiers in Toxicology* 2022-07-22 [PMID: 35936386] (IHC)

Moffet J, Fatunla O, Freytag L et al. Recapitulating thyroid cancer histotypes through engineering embryonic stem cells *bioRxiv* 2023-03-15 (IHC-P, Human)

### Details:

Citation using the version of this antibody.

Kim EJ, Kim JY, Kim SO et al. The oncogenic JAG1 intracellular domain is a transcriptional cofactor that acts in concert with DDX17/SMAD3/TGIF2 *Cell reports* 2022-11-22 [PMID: 36417870] (WB, Human)

Guo Y, Chomiak AA, Hong Y et al. Histone H2A ubiquitination resulting from Brap loss of function connects multiple aging hallmarks and accelerates neurodegeneration *iScience* 2022-07-15 [PMID: 35754718] (WB, Mouse)

Liu L, Killoy Km, Vargas Mr Et Al. Effects of RAGE inhibition on the progression of the disease in hSOD1G93A ALS mice *Pharmacol Res Perspect* 2020-08-01 [PMID: 32776498] (IHC-P, Mouse)

Killoy KM, Harlan BA, Pehar M, Vargas MR FABP7 upregulation induces a neurotoxic phenotype in astrocytes *Glia* 2020-07-03 [PMID: 32619303] (Mouse)

Harlan B, Killoy K, Pehar M et al. Evaluation of the NAD<sup>+</sup> biosynthetic pathway in ALS patients and effect of modulating NAD<sup>+</sup> levels in hSOD1-linked ALS mouse models *Experimental Neurology* 2020-01-01 [PMID: 32014438] (IHC-P, Mouse)

Aydin M, Yigit E, Vatandaslar E et al. Transfer and Integration of Breast Milk Stem Cells to the Brain of Suckling Pups *Sci Rep* 2018-11-13 [PMID: 30250150] (IHC-Fr, Mouse)

### Details:

Using the Azide and BSA Free form of this antibody.

More publications at <http://www.novusbio.com/NBP2-29415>







### **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 NBP2-29415**

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HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)
H00002670-Q01-10ug	Recombinant Human GFAP GST (N-Term) Protein

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### **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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