NEUROMICS

GFAP Data Sheet

Catalog Number:	MO15052	**Host:**	Mouse
Product Type:	Mouse IgG_1. Clone: 273807.	**Species Reactivity:**	Human
Immunogen Sequence:	Hybridoma resulting from the fusion of a mouse myeloma with B cells obtained from a mouse immunized with purified, *E. coli*-derived recombinant human Glial Fibrillary Acidic Protein (rhGFAP; aa 292 - 432; Accession # P14136).	**Format:**	Liquid 1mg/ml Solution in phosphate-buffered saline (PBS) with 5% Trehlose
Applications:	Immunohistochemistry-5-10 µg/mL Western Blot-1-2 µg/mL Direct ELISA-0.5 - 1.0 µg/mL		

Dilutions listed as a recommendation. Optimal dilution should be determined by investigator.

Storage: Antibody can be aliquotted and stored frozen at -20° C to -70° C in a manual defrost freezer for six months without detectable loss of activity. The antibody can be stored at 2° - 8° C for 1 month without detectable loss of activity. *Avoid repeated freeze-thaw cycles.*

Frances Y. Cheng, Xi Huang, Anuraag Sarangi, Tatiana Ketova, Michael K. Cooper, Ying Litingtung, Chin Chiang. Widespread Contribution of Gdf7 Lineage to Cerebellar Cell Types and Implications for Hedgehog-Driven Medulloblastoma Formation. PLoS ONE 7(4): e35541. doi:10.1371/journal.pone.0035541.

David H. McDougal,Gerlinda E. Hermann, and Richard C. Rogers. Vagal Afferent Stimulation Activates Astrocytes in the Nucleus of the Solitary Tract Via AMPA Receptors: Evidence of an Atypical Neural–Glial Interaction in the Brainstem. The Journal of Neuroscience, 28 September 2011, 31(39): 14037-14045; doi: 10.1523/JNEUROSCI.2855-11.2011.

A. J. Mercer, K. Rabl, G. E. Riccardi, N. C. Brecha, S. L. Stella, Jr, and W. B. Thoreson Location of Release Sites and Calcium-Activated Chloride Channels Relative to Calcium Channels at the Photoreceptor Ribbon Synapse. J Neurophysiol, Jan 2011; 105: 321 - 335.

Application Notes

Specificity
This antibody is designed to detect rhGFAP by Immunohistochemistry, Western blots and direct ELISAs.

Immunohistochemistry :
This antibody was used at a concentration of 5 - 10 µg/mL to detect human GFAP in astrocytes differentiated from neural progenitors. Cells were fixed with PBS containing 4% paraformaldehyde for 20 minutes at room temperature and blocked with PBS containing 10% normal donkey serum, 0.1% Triton X-100, and 1% BSA for 45 minutes at room temperature. After blocking, cells were incubated with diluted primary antibody overnight at 4° C followed by Rhodamine Red™-coupled anti-mouse IgG at room temperature in the dark for one hour. Between each step, cells were washed with PBS containing 0.1% BSA.
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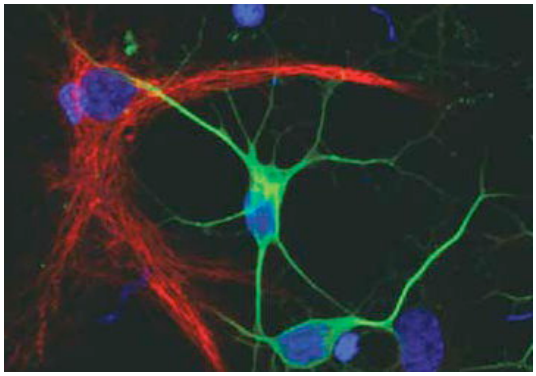
Western blot:
This antibody can be used at 1 - 2 µg/mL with the appropriate secondary reagents to detect human GFAP. Using a colorimetric detection system, the detection limit for rhGFAP is approximately 25 ng/lane under non-reducing and reducing conditions.

Direct ELISA:
This antibody can be used at 0.5 - 1.0 µg/mL with the appropriate secondary reagents to detect human GFAP. The detection limit for rhGFAP is approximately 3 ng/well.

Description/Data:
This antibody reacts with the 52 kD intermediate filament protein GFAP in brain and spinal cord. It labels some astrocytes and some CNS ependymal cells but not oligodendrocytes or neurons. This antibody does not react with other intermediate filament proteins. Immunohistochemistry Protocol: This antibody was used at a concentration of 5 - 10 µg/mL to detect human GFAP in astrocytes differentiated from neural progenitors. Cells were fixed with PBS containing 4% paraformaldehyde for 20 minutes at room temperature and blocked with PBS containing 10% normal donkey serum, 0.3% Triton X-100, and 1% BSA for 45 minutes at room temperature. After blocking, cells were incubated with diluted primary antibody overnight at 4° C followed by Rhodamine Red™-coupled anti-mouse IgG at room temperature in the dark for one hour. Between each step, cells were washed with PBS containing 0.1% BSA.

Image: Rat cortical stem cells were differentiated for 7 days and stained with GFAP (red) and Tuj-1 (green). The nuclei were stained with DAPI (blue).



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