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Rabbit Anti-GFAP antibody

SL0199R

Product Name:	GFAP
Chinese Name:	胶质纤维酸性蛋白抗体
Alias:	Astrocyte; FLJ45472; GFAP; Glial Fibrillary Acidic Protein; Intermediate filament protein; GFAP_HUMAN.
文献引用 PubMed :	**Specific References(14)**|SL0199R has been referenced in 14 publications. **[IF=10.82]**Zhao, Hongyu, et al. "Mice deficient in Epg5 exhibit selective neuronal vulnerability to degeneration." The Journal of Cell Biology (2013).**IHC-P;Mouse**. PubMed:23479740 **[IF=4.65]**Zhao, Yan G., et al. "The p53-induced gene Ei24 is an essential component of the basal autophagy pathway." Journal of Biological Chemistry 287.50 (2012): 42053-42063.**Mouse**. PubMed:23074225 **[IF=3.73]**Xiang, Yanxiao, et al. "Anti-inflammatory Effect of Acetylpuerarin on Eicosanoid Signaling Pathway in Primary Rat Astrocytes."Journal of Molecular Neuroscience(2013): 1-9**IF(ICC);Rat**. PubMed:24130900 **[IF=2.93]**Liu, Yang, et al. "A Simple Method for Isolating and Culturing the Rat Brain Microvascular Endothelial Cells." Microvascular Research (2013).**Rat**. PubMed:23978334 **[IF=2.89]**Xiang, Yanxiao, et al. "Anti-inflammatory Effect of Acetylpuerarin on Eicosanoid Signaling Pathway in Primary Rat Astrocytes."Journal of Molecular Neuroscience(2013): 1-9**Mouse**.

PubMed:24026619

[IF=1.29]Fan, Lixing, et al. "Directed differentiation of aged human bone marrow multipotent stem cells effectively generates dopamine neurons."?In Vitro Cellular & Developmental Biology-Animal?(2013): 1-9.**Human**.

PubMed:24163158

[IF=2.65]Zuo, Daiying, et al. "Existence of glia mitigated ketamine-induced neurotoxicity in neuron-glia mixed cultures of neonatal rat cortex and the glia-mediated protective effect of 2-PMPA." Neurotoxicology (2014).**Rat**.

PubMed:24931484

[IF=10.53]Ma, Benyu, et al. "Dapper1 promotes autophagy by enhancing the Beclin1-Vps34-Atg14L complex formation." Cell Research (2014).**IHC-F;Mouse**.

PubMed:24980960

[IF=7.58]Shan, Chun-Lei, et al. "High Efficiency Intracellular Transport of Cationic Peptide Stearate for Gene Delivery in Tumor Cells and Multipotent Stem Cells." Journal of Biomedical Nanotechnology 10.11 (2014): 3231-3243.**other;**

PubMed:26000383

[IF=5.29]Du, Wenzhong, et al. "Targeting the SMO oncogene by miR-326 inhibits glioma biological behaviors and stemness." Neuro-Oncology (2014): nou217.**IHC-F;Human**.

PubMed:25173582

[IF=11.42]Zhao, Yan G., et al. "The autophagy gene Wdr45/Wipi4 regulates learning and memory function and axonal homeostasis." Autophagy (2015).**IHC-P;Mouse**.

PubMed:26000824

[IF=2.86]Mori, Miki, et al. "Stromal Cell-Derived Factor-1α Plays a Crucial Role Based on Neuroprotective Role in Neonatal Brain Injury in Rats." International Journal of Molecular Sciences 16.8 (2015): 18018-18032.**IHC-F;Rat**.

PubMed:26251894

[IF=2.47]Yan, Yu-hui, et al. "Osthole Protects Bone Marrow-Derived Neural Stem Cells from Oxidative Damage through PI3K/Akt-1 Pathway." Neurochemical Research (2016): 1-8.**other;Mouse**.

PubMed:27734182

[IF=0.00]Liao, Wei-Tao, et al. "The effect of celastrol on learning and memory in

	diabetic rats after sevoflurane inhalation." (2016).**IHC-P;Rat**. PubMed:0
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Dog,Pig,Cow,Rabbit,Sheep,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:200-1000IHC-F=1:200-1000Flow-Cyt=1μg/TestICC=1:100-500IF=1:200-800（Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	48kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human GFAP:51-150432
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	This gene encodes one of the major intermediate filament proteins of mature astrocytes. It is used as a marker to distinguish astrocytes from other glial cells during development. Mutations in this gene cause Alexander disease, a rare disorder of astrocytes in the central nervous system. Alternative splicing results in multiple transcript variants encoding distinct isoforms. [provided by RefSeq, Oct 2008] **Function:** GFAP, a class-III intermediate filament, is a cell-specific marker that, during the development of the central nervous system, distinguishes astrocytes from other glial cells. **Subunit:** Interacts with SYNM. Isoform 3 interacts with PSEN1 (via N-terminus). **Subcellular Location:** Cytoplasm. Note=Associated with intermediate filaments. **Tissue Specificity:** Expressed in cells lacking fibronectin. **Post-translational modifications:** Phosphorylated by PKN1.

DISEASE:
Defects in GFAP are a cause of Alexander disease (ALEXD) [MIM:203450]. Alexander disease is a rare disorder of the central nervous system. It is a progressive leukoencephalopathy whose hallmark is the widespread accumulation of Rosenthal fibers which are cytoplasmic inclusions in astrocytes. The most common form affects infants and young children, and is characterized by progressive failure of central myelination, usually leading to death usually within the first decade. Infants with Alexander disease develop a leukoencephalopathy with macrocephaly, seizures, and psychomotor retardation. Patients with juvenile or adult forms typically experience ataxia, bulbar signs and spasticity, and a more slowly progressive course.

Similarity:
Belongs to the intermediate filament family.

SWISS:
P14136

Gene ID:
2670

Database links:

Entrez Gene: 281189Cow

Entrez Gene: 2670Human

Entrez Gene: 14580Mouse

Entrez Gene: 24387Rat

Omim: 137780Human

SwissProt: Q28115Cow

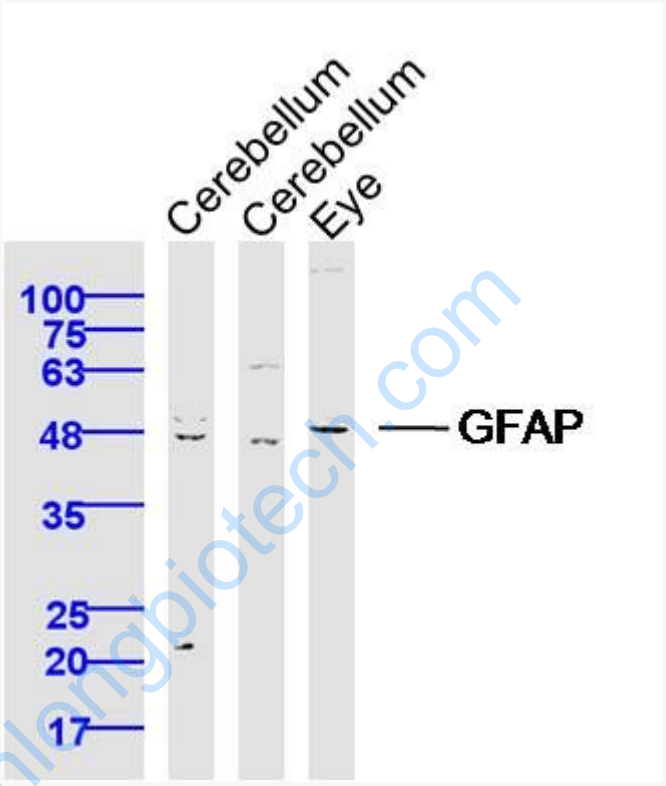
SwissProt: P14136Human

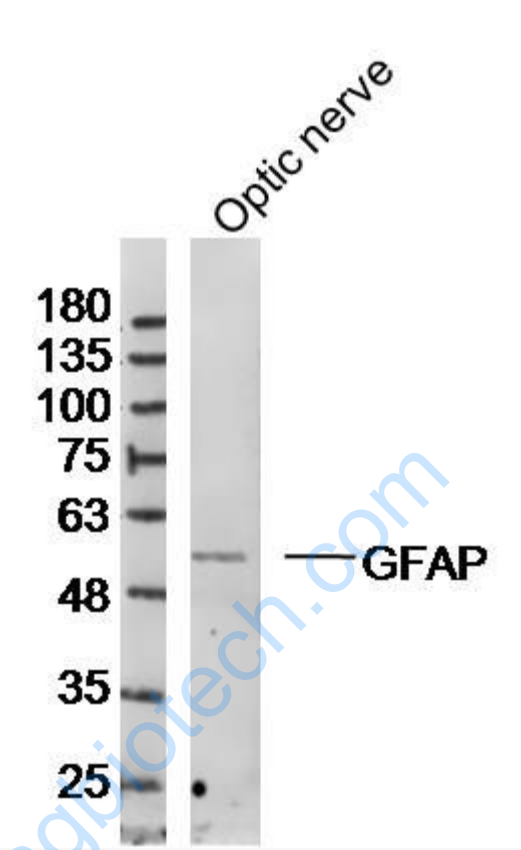
SwissProt: P03995Mouse

Important Note:
This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

星形胶质细胞Maker（Astrocyte Marker）

GFAP是一个56kDa的中间丝蛋白(intermediate filament，IF)，在中枢神经系统发育期是一个特异性的Maker，以区别星形细胞和其它胶质细胞。GFAP表达在皮层和海马,急、慢性皮质酮治疗时表达减少。

	GFAP可以和人、大鼠、小鼠的GFAP反应，在正常和Tumour性的星形胶质细胞阳性表达，而神经节细胞、神经元、成纤维细胞、少突胶质细胞和这些细胞来源的Tumour细胞阴性表达，主要用于星形胶质瘤等中枢神经系统Tumour的诊断和鉴别诊断,GFAP的缺乏可导致AD病。
Picture:	 Sample: Cerebellum (Rat) Lysate at 40 ug Cerebellum (Mouse) Lysate at 40 ug Eye (Mouse) Lysate at 40 ug Primary: Anti-GFAP (SL0199R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 48 kD Observed band size: 48 kD



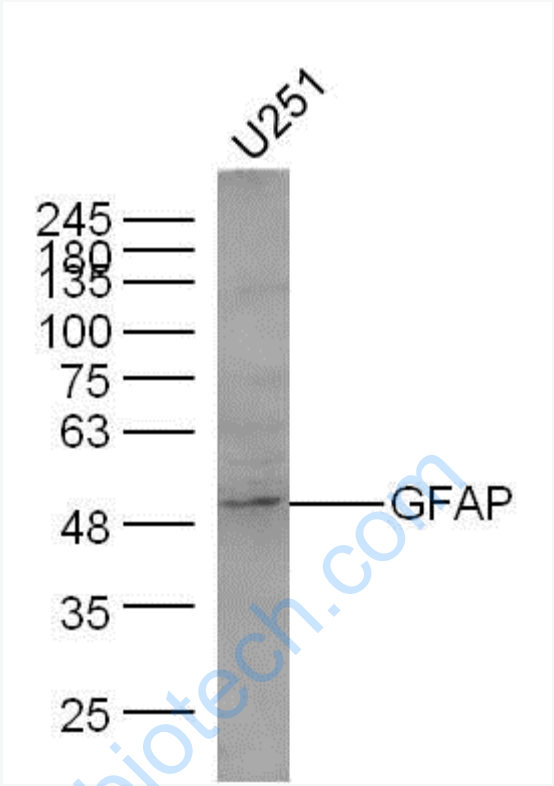
Sample:Optic nerve (Rat)cell Lysate at 40 ug

Primary: Anti-GFAP(SL0199R)at 1/300 dilution

Secondary: IRDye800CW Goat Anti-RabbitIgG at 1/20000 dilution

Predicted band size: 48 kD

Observed band size: 53 kD



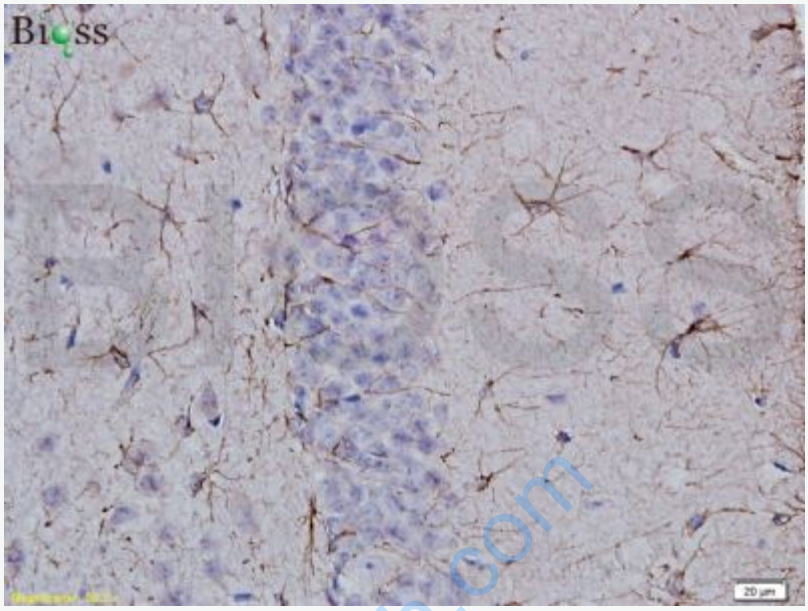
Sample: U251 Cell Lysate at 40 ug

Primary: Anti- GFAP (SL0199R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/10000 dilution

Predicted band size: 48 kD

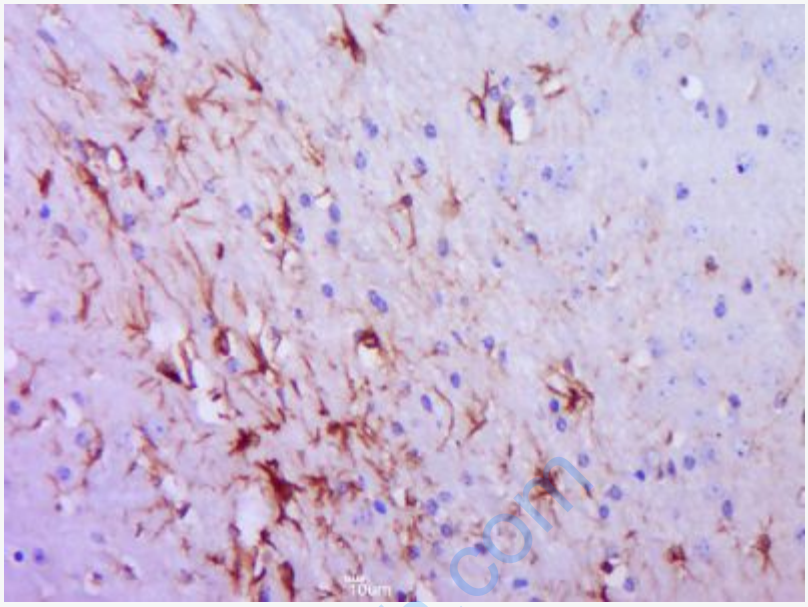
Observed band size: 50 kD



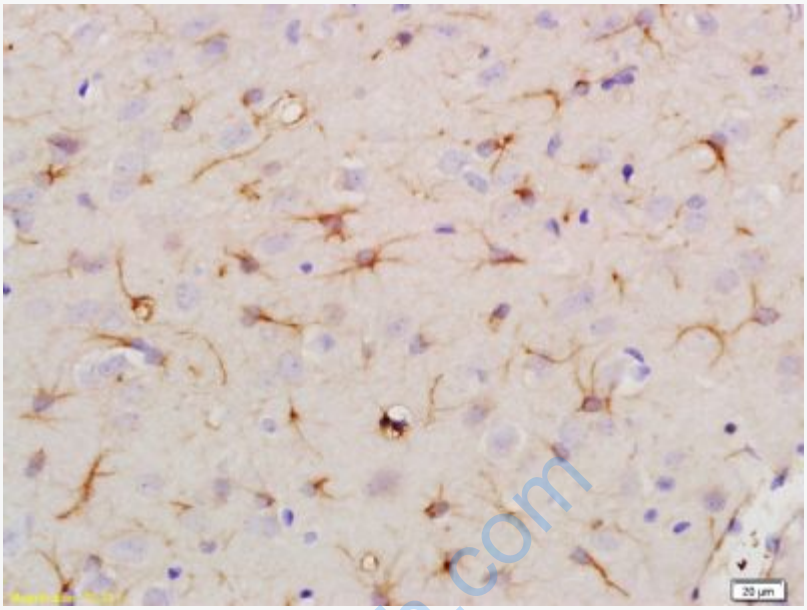
Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-GFAP Polyclonal Antibody, Unconjugated(SL0199R) 1:400, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



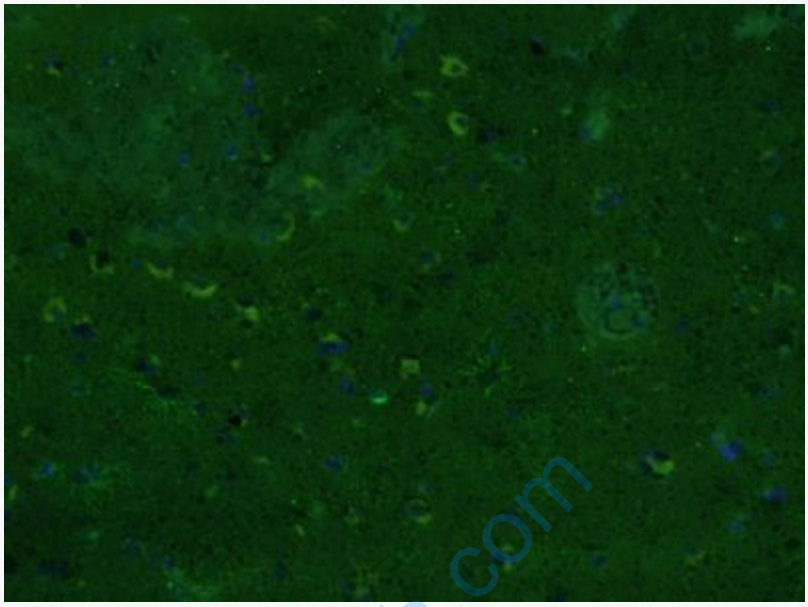
Paraformaldehyde-fixed, paraffin embedded (Mouse brain); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (GFAP) Polyclonal Antibody, Unconjugated (SL0199R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining.



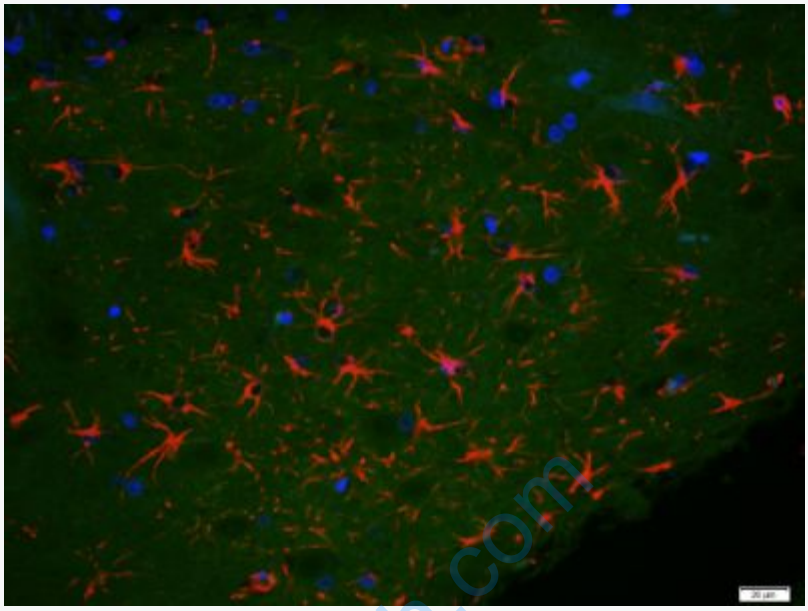
Tissue/cell: rat brain tissue; 4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

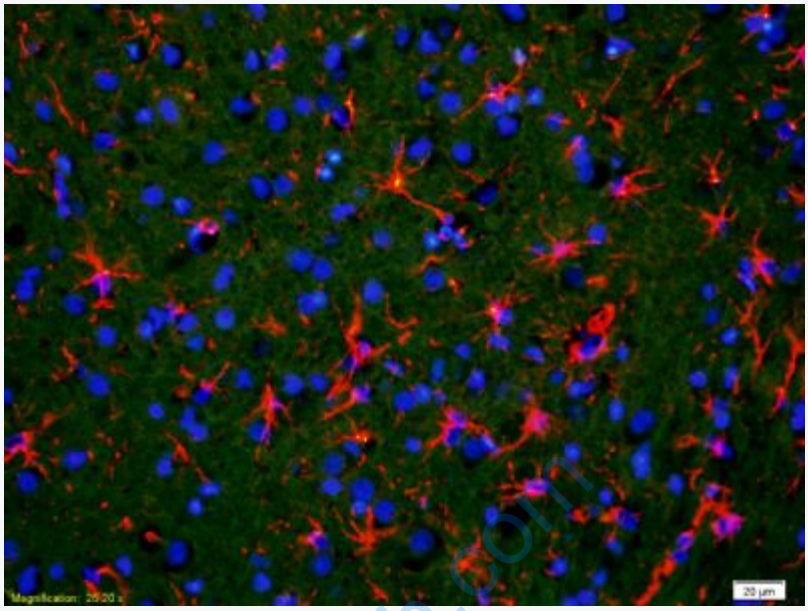
Incubation: Anti-GFAP Polyclonal Antibody, Unconjugated(SL0199R) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Paraformaldehyde-fixed, paraffin embedded (Human brain glioma); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (GFAP) Polyclonal Antibody, Unconjugated (SL0199R) at 1:400 overnight at 4°C, followed by a conjugated Goat Anti-Rabbit IgG antibody (SL0199R) for 90 minutes, and DAPI for nuclei staining.



Paraformaldehyde-fixed, paraffin embedded (rat brain); Antigen retrieval by boiling in sodium citrate buffer (pH6) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (GFAP) Polyclonal Antibody, Unconjugated (SL0199R) at 1:200 overnight at 4°C, followed by a conjugated secondary (SL0199R) at [1:500] for 90 minutes and DAPI staining of the nuclei.



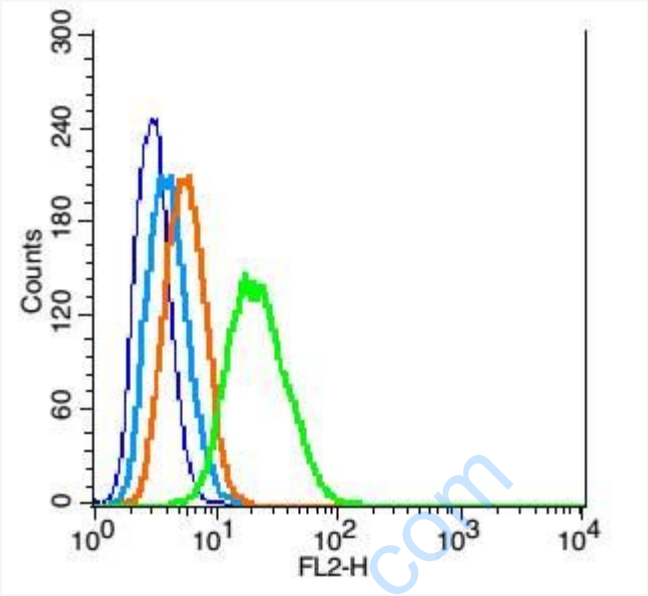
Tissue/cell: rat brain tissue;4% Paraformaldehyde-fixed and paraffin-embedded;

Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min;

Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min;

Incubation: Anti-GFAP Polyclonal Antibody, Unconjugated(SL0199R) 1:400, overnight at 4°C; The secondary antibody was Goat Anti-Rabbit IgG, Cy3 conjugated(SL0199R)used at 1:200 dilution for 40 minutes at 37°C.

DAPI(5ug/ml,blue,C-0033) was used to stain the cell nuclei



Blank control: RSC96(blue).

Primary Antibody:Rabbit Anti- GFAP antibody(SL0199R), Dilution: 1μg in 100 μL 1X PBS containing 0.5% BSA;

Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions);

Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA.

Protocol

The cells were fixed with 2% paraformaldehyde (10 min) , then permeabilized with 90% ice-cold methanol for 30 min on ice. Primary antibody (SL0199R) were incubated for 30 min on the ice, followed by 1 X PBS containing 0.5% BSA + 1 0% goat serum (15 min) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/PE antibody was added into the blocking buffer mentioned above to react with the primary antibody at 1/200 dilution for 30 min on ice. Acquisition of 20,000 events was performed.