

### Anti-GFAP antibody [2A5] ab4648

★★★★☆ [15 Abreviews](#) [69 References](#) [8 图像](#)

#### 概述

产品名称	Anti-GFAP抗体[2A5]
描述	小鼠单克隆抗体[2A5] to GFAP
宿主	Mouse
特异性	This clone gives a much stronger signal in pig, and human samples than in rodents. For rodent (mouse, rat, etc) samples use <a href="#">ab68428</a> .
经测试应用	<b>适用于:</b> IHC-FrFl, WB, IHC-P, ICC/IF
种属反应性	<b>与反应:</b> Mouse, Rat, Human, Pig
免疫原	Full length native protein (purified) corresponding to Pig GFAP. A preparation of purified pig spinal cord GFAP.
阳性对照	IHC-P: Human brain tissue, human cerebellum tissue. IHC-FreeFloat: Rat cerebellum tissue: WB: Pig brain tissue lysate; Rat spinal cord tissue lysate; Mouse spinal cord tissue lysate. ICC: Rat neuron/glia cells.
常规说明	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&amp;As</p>

#### 性能

形式	Liquid
存放说明	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles.
存储溶液	Preservative: 0.065% Sodium azide Constituent: Tissue culture supernatant
纯度	Concentrated Tissue Culture Supernatant Tissue culture supernatant
纯化说明	Antibody is supplied as Integra CL-350 flask material, which is concentrated tissue culture

	supernatant.
克隆	单克隆
克隆编号	2A5
同种型	IgG1
轻链类型	kappa

## 应用

**The Abpromise guarantee**      **Abpromise™**承诺保证使用ab4648于以下的经测试应用

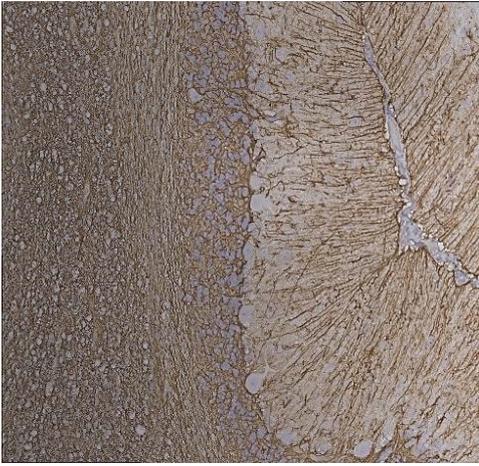
“应用说明”部分下显示的仅为推荐的起始稀释度;实际最佳的稀释度/浓度应由使用者检定。

应用	Ab评论	说明
IHC-FrFI		1/500.
WB	★★★★★ (1)	1/2000. Predicted molecular weight: 49 kDa.
IHC-P	★★★★★ (3)	1/500.
ICC/IF	★★★★☆ (5)	1/10 - 1/50.

## 靶标

<b>功能</b>	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.
<b>组织特异性</b>	Expressed in cells lacking fibronectin.
<b>疾病相关</b>	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.
<b>序列相似性</b>	Belongs to the intermediate filament family.
<b>翻译后修饰</b>	Phosphorylated by PKN1.
<b>细胞定位</b>	Cytoplasm. Associated with intermediate filaments.

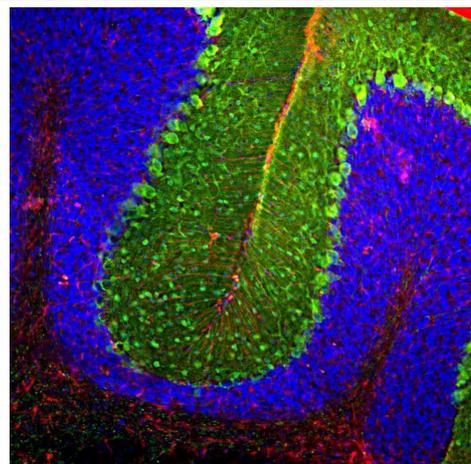
## 图片



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GFAP antibody [2A5] (ab4648)

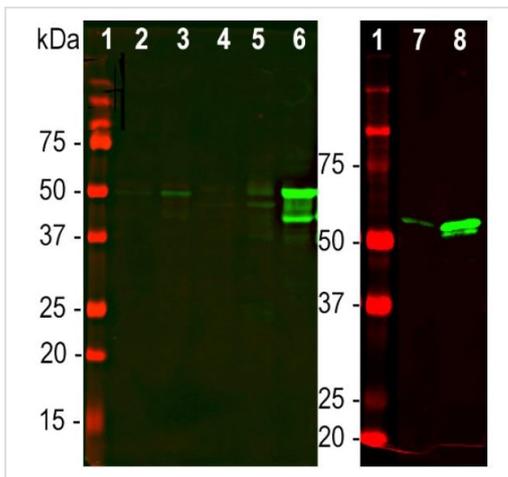
Immunohistochemistry analysis of paraffin-embedded human cerebellum tissue sections labelling GFAP with ab4648 at 1/500 dilution (1 mg/mL). Sections were stained with ab4648 using the HRP/DAB staining. Sections were counterstained with hematoxylin/eosin. Antigen retrieval was heat mediated using Antigen retrieval buffer (100X citrate buffer) (pH 6.0) ([ab93678](#)) for 15 minutes.

To the right is a region of cerebellar molecular layer containing the prominent cytoskeletal fibers of Bergmann glia which are strongly positive for GFAP. The middle shows a region of the granular layer and to the left is white matter, both of which contain GFAP positive astrocytes. The immunostaining was performed with the Vector ImmPress rat adsorbed horse anti-mouse IgG detection kit.



Immunohistochemistry - Free Floating - Anti-GFAP antibody [2A5] (ab4648)

Immunofluorescence analysis of rat cerebellum tissue labeling GFAP with ab4648 at 1/500 dilution (Red), Costained with parvalbumin antibody at 1/2,000 dilution (Green). The blue is DAPI staining of nuclear DNA. Following transcardial perfusion of rat with 4% paraformaldehyde, brain was post fixed for 24 hours, and free-floating 45µM sections were stained with above antibodies. ab4648 stains the processes of Bergmann glia and astrocytes. The Pvalb antibody labels perikarya and dendrites of Purkinje cells and interneurons in the molecular layer of the cerebellum. The staining on rodent tissues is specific but not as robust as on human material.



Western blot - Anti-GFAP antibody [2A5] (ab4648)

**Lanes 2-8** : Anti-GFAP antibody [2A5] (ab4648) at 1/2000 dilution

**Lane 1** : MW markers

**Lane 2** : Rat brain tissue lysate

**Lane 3** : Rat spinal cord tissue lysate

**Lane 4** : Mouse brain tissue lysate

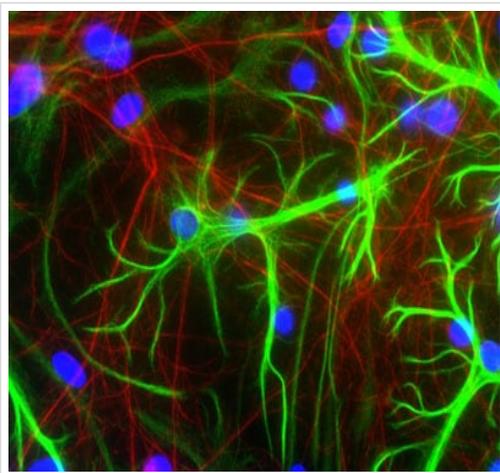
**Lane 5** : Mouse spinal cord tissue lysate

**Lane 6** : Pig brain tissue lysate

**Lane 7** : Recombinant rat GFAP protein

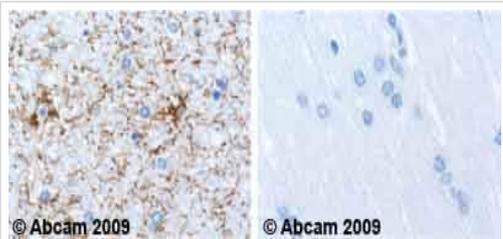
**Lane 8** : Recombinant human GFAP protein

**Predicted band size:** 49 kDa



Immunocytochemistry/ Immunofluorescence - Anti-GFAP antibody [2A5] (ab4648)

Rat neuron/glia cultures stained with mouse monoclonal to GFAP ab 4648 (red).

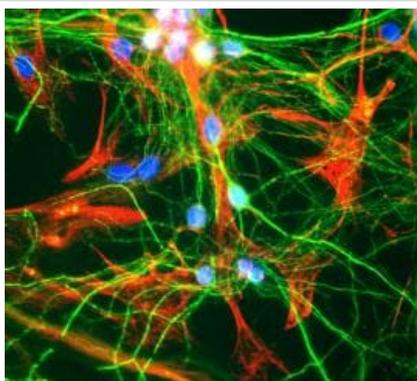


Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-GFAP antibody [2A5] (ab4648)

Ab4648 staining human substantia nigra. Staining is localised to the cytoplasm.

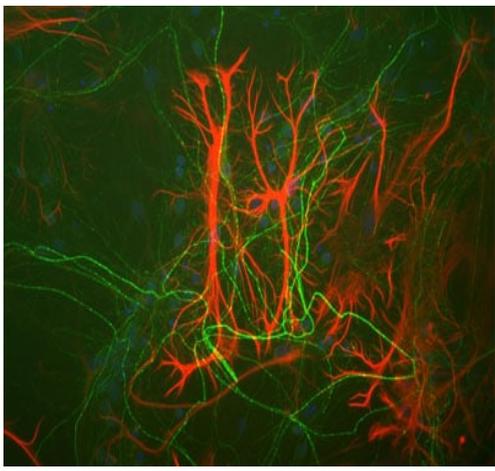
Left panel: with primary antibody diluted 1:4000. Right panel: isotype control.

Sections were stained using an automated system DAKO Autostainer Plus , at room temperature. Sections were rehydrated and antigen retrieved with the Dako 3-in-1 AR buffer citrate pH 6.0 in a DAKO PT Link. Slides were peroxidase blocked in 3% H<sub>2</sub>O<sub>2</sub> in methanol for 10 minutes. They were then blocked with Dako Protein block for 10 minutes (containing casein 0.25% in PBS) then incubated with primary antibody for 20 minutes and detected with Dako Envision Flex amplification kit for 30 minutes. Colorimetric detection was completed with diaminobenzidine for 5 minutes. Slides were counterstained with Haematoxylin and coverslipped under DePeX. Please note that for manual staining we recommend to optimize the primary antibody concentration and incubation time (overnight incubation), and amplification may be required.



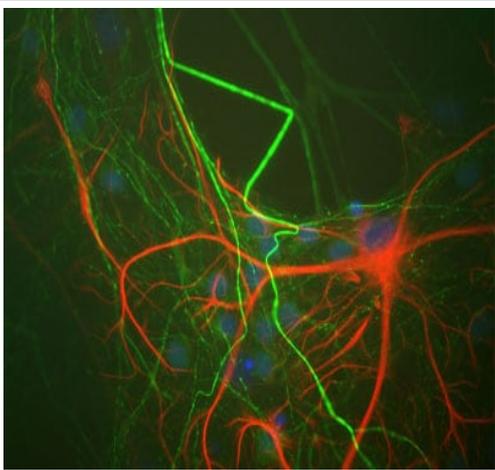
Immunocytochemistry/ Immunofluorescence - Anti-GFAP antibody [2A5] (ab4648)

Rat cortical neurons and glia in mixed tissue culture stained with Chicken polyclonal to MAP2 - [ab5392](#) (green) at 1/30000 and Mouse monoclonal to GFAP - ab4648 (red) at 1/100. Nuclei of all cells are stained with Hoechst dye (blue). Picture taken with a Zeiss 20X objective and documented with a Digital SPOT camera.



Rat neuron/glia cultures stained with mouse monoclonal to GFAP ab4648 (red).

Immunocytochemistry/ Immunofluorescence - Anti-GFAP antibody [2A5] (ab4648)



Rat neuron/glia cultures stained with mouse monoclonal to GFAP ab4648 (green).

Immunocytochemistry/ Immunofluorescence - Anti-GFAP antibody [2A5] (ab4648)

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