

Anti-KIF5A antibody ab5628

★★★★★ [3 Abreviews](#) [17 References](#) [3 图像](#)

概述

产品名称	Anti-KIF5A抗体
描述	兔多克隆抗体to KIF5A
宿主	Rabbit
特异性	This antibody is specific for KIF5A and does not detect other kinesin isoforms.
经测试应用	适用于: ICC/IF, WB, IP
种属反应性	与反应: Mouse, Rat, Cow, Human
免疫原	Synthetic peptide corresponding to Mouse KIF5A aa 1007-1027. Sequence: CGYEAEDQAKLFPLHQETAAS (Peptide available as ab41781)

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常规说明

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.

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&As

性能

形式	Liquid
存放说明	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C or -80°C. Avoid freeze / thaw cycle.
存储溶液	Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 99% PBS
纯度	Immunogen affinity purified
Primary antibody说明	Kinesins are a superfamily of microtubule-associated motor proteins involved in a variety of cellular processes including membranous organelle transport and cell division. Kinesin has been found in a variety of organisms and cell types and is subject to spatial and temporal regulation.

These proteins have a modular structure including a conserved motor domain of approximately 350 amino acids, which is responsible for microtubule binding and ATP hydrolysis. In addition to the motor domain, subfamily members share common domain organization, exhibit sequence similarity, motility properties, and cellular functions outside of the motor domain. There are currently three known Kinesin 5 family members denoted as A, B, and C. Kinesin 5A and kinesin 5C appear to be exclusively neuronal, whereas kinesin 5B appears to be ubiquitous in its expression.

克隆 多克隆
同种型 IgG

应用

The Abpromise guarantee **Abpromise™**承诺保证使用ab5628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
ICC/IF		Use a concentration of 1 - 5 µg/ml.
WB	★★★★★ (2)	Use a concentration of 0.5 - 2 µg/ml. Predicted molecular weight: 117 kDa.
IP	★★★★★ (1)	Use at an assay dependent concentration. PubMed: 20094756

靶标

功能 Microtubule-dependent motor required for slow axonal transport of neurofilament proteins (NFH, NFM and NFL).

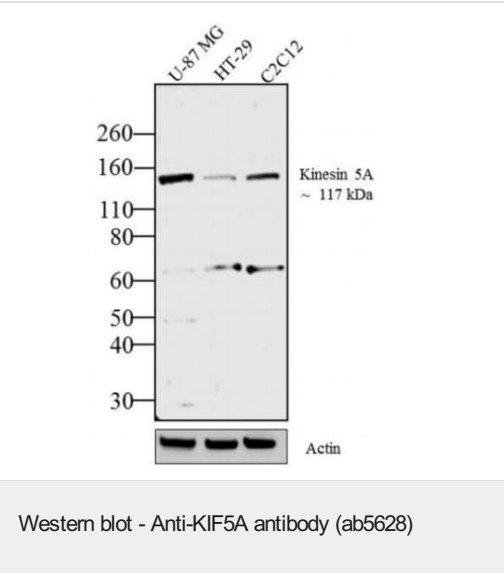
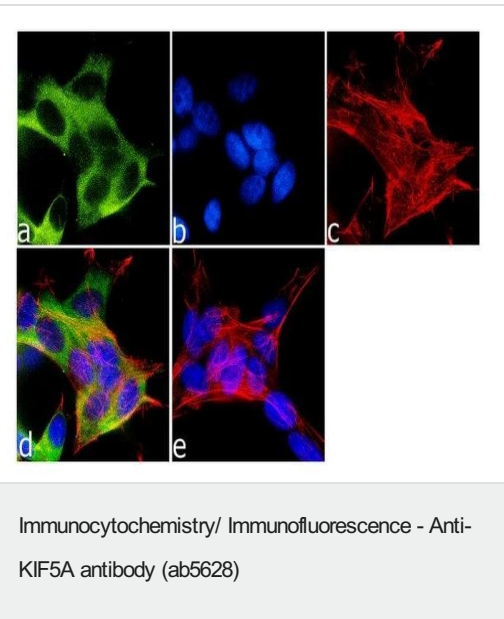
组织特异性 Distributed throughout the CNS but is highly enriched in subsets of neurons.

疾病相关 Defects in KIF5A are the cause of spastic paraplegia autosomal dominant type 10 (SPG10) [MIM:604187]. An inherited degenerative spinal cord disorder characterized by a slow, gradual, progressive weakness and spasticity (stiffness) of the legs. Rate of progression and the severity of symptoms is quite variable. Initial symptoms may include difficulty with balance, weakness and stiffness in the legs, muscle spasms, and dragging the toes when walking. In some forms of the disorder, bladder symptoms (such as incontinence) may appear, or the weakness and stiffness may spread to other parts of the body.

序列相似性 Belongs to the kinesin-like protein family. Kinesin subfamily. Contains 1 kinesin-motor domain.

结构域 Composed of three structural domains: a large globular N-terminal domain which is responsible for the motor activity of kinesin (it hydrolyzes ATP and binds microtubule), a central alpha-helical coiled coil domain that mediates the heavy chain dimerization; and a small globular C-terminal domain which interacts with other proteins (such as the kinesin light chains), vesicles and membranous organelles.

细胞定位 Cytoplasm > perinuclear region. Cytoplasm > cytoskeleton. Concentrated in the cell body of the neurons, particularly in the perinuclear region.



Immunofluorescence analysis of ADAMTS9 in Kinesin 5A cells using ab5628. The cells were fixed with 4% paraformaldehyde, permeabilized with 0.1% Triton™ X-100, and blocked with 1% BSA. The cells were labeled with ab5628 at 1 µg/mL in 0.1% BSA and incubated for 3 hours at room temperature followed by a Alexa Fluor® 488 Goat anti-Rabbit IgG (H+L) Secondary Antibody at 1/2000 dilution for 45 minutes at room temperature (Panel a: green). Nuclei (Panel b: blue) were stained with DAPI. F-actin (Panel c: red) was stained with Alexa Fluor® 555 Rhodamine Phalloidin at 1/300. (Panel d) represents the merged image showing cytoplasmic localization. (Panel e) shows the no primary antibody control. The images were captured at 60X magnification.

All lanes : Anti-KIF5A antibody (ab5628) at 2 µg/ml

Lane 1 : U-87 MG whole cell extracts

Lane 2 : HT-29 whole cell extracts

Lane 3 : C2C12 whole cell extracts

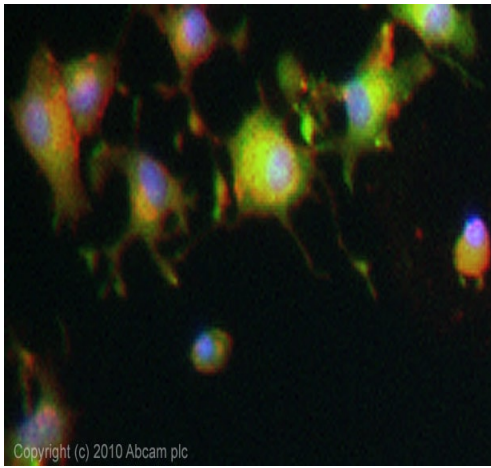
Lysates/proteins at 30 µg per lane.

Secondary

All lanes : Goat anti-Rabbit IgG (H+L) HRP conjugate at 1/2500 dilution

Predicted band size: 117 kDa

Blocking with 5 % skimmed milk



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Immunocytochemistry/ Immunofluorescence - Anti-KIF5A antibody (ab5628)

ICC/IF image of ab5628 stained PC12 cells. The cells were 4% formaldehyde fixed (10 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab5628, 5µg/ml) overnight at +4°C. The secondary antibody (green) was Alexa Fluor® 488 goat anti-rabbit IgG (H+L) used at a 1/1000 dilution for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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