

Product datasheet

Anti-Kinesin 5A antibody ab5628

★★★★★ 3 Abreviews 7 References 3 图像

概述

产品名称	Anti-Kinesin 5A抗体
描述	兔多克隆抗体to Kinesin 5A
宿主	Rabbit
特异性	This antibody is specific for kinesin 5A and does not detect other kinesin isoforms.
经测试应用	适用于: ICC/IF, IP, WB
种属反应性	与反应: Mouse, Rat, Cow, Human
免疫原	Synthetic peptide corresponding to Mouse Kinesin 5A aa 1007-1027. Sequence: CGYEAEDQAKLFPLHQETAAS (Peptide available as ab41781) Run BLAST with Run BLAST with
阳性对照	Mouse neuronal cell extract.

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

Our [Abpromise guarantee](#) covers the use of **ab5628** in the following tested applications.

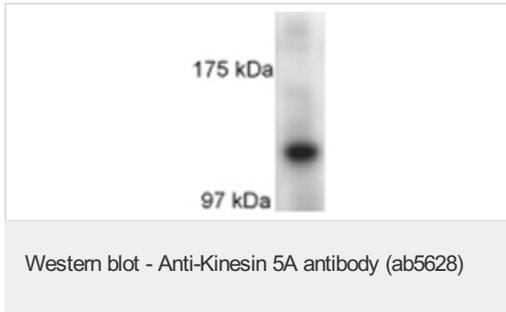
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用	Ab评论	说明
ICC/IF		Use a concentration of 5 µg/ml.
IP	★★★★★	Use at an assay dependent concentration. PubMed: 20094756
WB	★★★★★	Use a concentration of 0.4 µg/ml. Detects a band of approximately 110 kDa (predicted molecular weight: 117 kDa). Can be blocked with Kinesin 5A peptide (ab41781) .

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.

图片



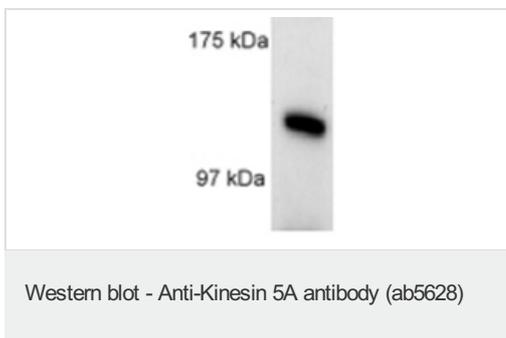
Anti-Kinesin 5A antibody (ab5628) + mouse neuronal cell extract

Secondary

HRP-conjugated anti rabbit antibody

Predicted band size: 117 kDa

Shows a Western blot of kinesin 5A on mouse neuronal cell extract using ab5628.

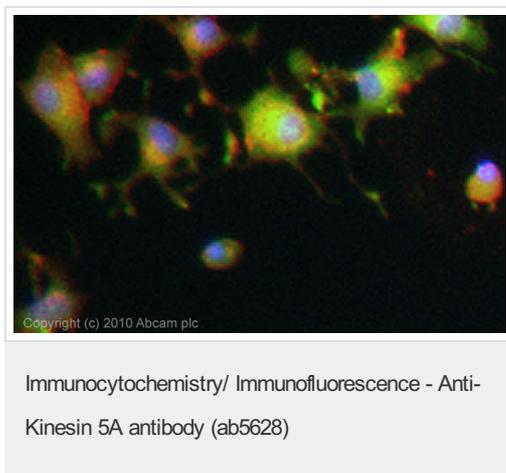


Anti-Kinesin 5A antibody (ab5628) + human retinal extract

Secondary

HRP-conjugated anti-rabbit antibody

Predicted band size: 117 kDa



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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