



Rabbit Anti-KIF5A/NKHC1 antibody

SL11027R

Product Name:	KIF5A/NKHC1
Chinese Name:	驱动蛋白KIF5A抗体
Alias:	Kinesin 5A; Kinesin5A; Kinesin-5A; KIF 5A; KIF5A; KIF5A_HUMAN; Kinesin family member 5A; Kinesin heavy chain isoform 5A; Kinesin Heavy Chain Neuron Specific; Kinesin heavy chain neuron-specific 1; neuronal kinesin heavy chain 1; MY050; Neuronal kinesin heavy chain; NKHC 1; NKHC1; NKHC-1; NKHC; SPG 10.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Pig,Cow,Horse,Rabbit,Sheep,
Applications:	ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	113kDa
Cellular localization:	cytoplasmic
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human KIF5A/NKHC1:201-300/1032
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:	NKHC1 is a neuronal-specific component of a multi-subunit “molecular motor” complex that mediates intracellular organelle transport. Mutations in the gene encoding NKHC1 cause autosomal dominant spastic paraplegia 10. NKHC1 has a pan-neuronal distribution in the nervous system. Rat tissue extracts by immunoblot of NKHC1 can

produce a doublet only in brain and sciatic nerve tissue. NKHC1 is distributed throughout the central nervous system and is enriched in subsets of neurons. Within cultured hippocampal neurons, NKHC1 is concentrated in the perinuclear region of the cell body. Kinesin superfamily proteins like NKHC1 are the molecular motors conveying cargos along microtubules.

Function:

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

Subunit:

Oligomer composed of two heavy chains and two light chains. Interacts with GRIP1.

Subcellular Location:

Cytoplasm, perinuclear region. Cytoplasm, cytoskeleton. Note=Concentrated in the cell body of the neurons, particularly in the perinuclear region.

Tissue Specificity:

Distributed throughout the CNS but is highly enriched in subsets of neurons.

DISEASE:

Defects in KIF5A are the cause of spastic paraplegia autosomal dominant type 10 (SPG10). 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.

Similarity:

Belongs to the kinesin-like protein family. Kinesin subfamily.
Contains 1 kinesin-motor domain.

SWISS:

Q12840

Gene ID:

3798

Database links:

[Entrez Gene: 511273](#)Cow

[Entrez Gene: 3798](#)Human

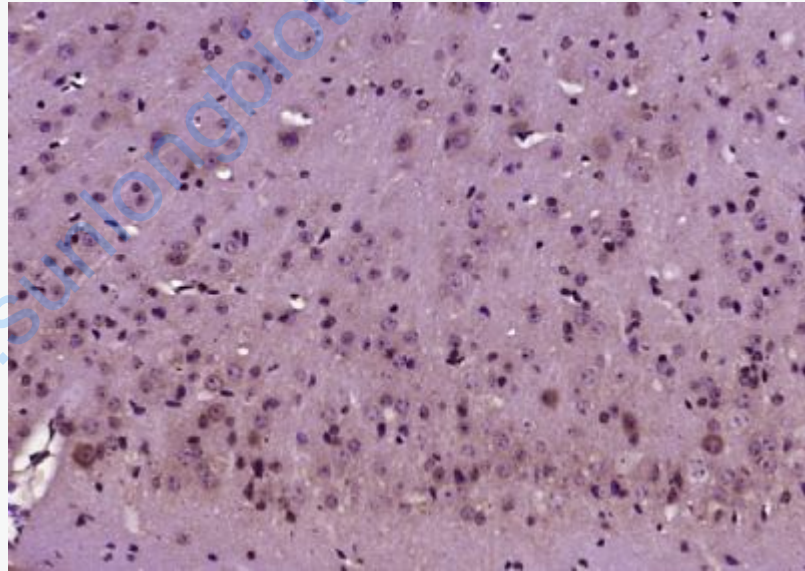
[Entrez Gene: 16572](#)Mouse

[Entrez Gene: 314906](#)Rat
[Omin: 602821](#)Human
[SwissProt: Q12840](#)Human
[SwissProt: P33175](#)Mouse
[SwissProt: Q6QLM7](#)Rat
[Unigene: 151219](#)Human
[Unigene: 30355](#)Mouse
[Unigene: 63144](#)Rat

Important Note:

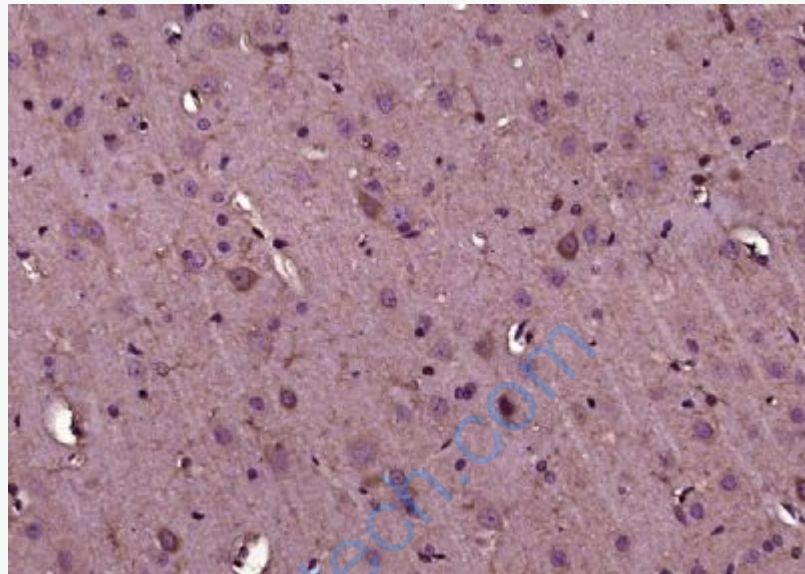
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Picture:



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 (KIF5A/NKHC1) Polyclonal Antibody, Unconjugated (SL11027R) at 1:400 overnight at 4°C, followed by operating

according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.



Paraformaldehyde-fixed, paraffin embedded (Rat 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 (KIF5A/NKHC1) Polyclonal Antibody, Unconjugated (SL11027R) at 1:400 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructions and DAB staining.