

Kinesin 5C/NKHC2 Rabbit pAb

Catalog # AP99380

Product Information

Application	IHC-P, IHC-F, IF
Primary Accession	O60282
Other Accession	O60282
Reactivity	Mouse
Predicted	Rat, Pig, Human, Rabbit, Chicken, Dog, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	109495
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Kinesin 5C/NKHC2
Epitope Specificity	451-550/957
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the kinesin-like protein family. Kinesin subfamily. Contains 1 kinesin-motor domain.
SUBUNIT	Oligomer composed of two heavy chains and two light chains. Interacts with GRIP1 and KLC3 (By similarity). Interacts with TRAK1.
DISEASE	Cortical dysplasia, complex, with other brain malformations 2 (CDCBM2) [MIM:615282]: A disorder of aberrant neuronal migration and disturbed axonal guidance. Clinical features include intrauterine growth retardation, fetal akinesia, seizures, microcephaly, lack of psychomotor development, and arthrogryposis. Brain imaging shows malformations of cortical development, including polymicrogyria, gyral simplification, and thin corpus callosum. {ECO:0000269 PubMed:23603762}. Note=The disease is caused by mutations affecting the gene represented in this entry.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	Neuronal kinesin heavy chain 2 (NKHC2) is a 1,032 amino acid protein that is part of the kinesin superfamily which consists of the heavy chains of conventional kinesin. NKHC is expressed throughout the central nervous system, but is highly expressed in certain subsets of neurons. NKHC has a unique C-terminal stretch of 69 amino acids and interacts with dystrobrevin, an adaptor/scaffolding protein. This interaction may play a role in the transport and targeting of components of the dystrophin-associated protein complex to precise sites in the cell. NKHC may also be involved in the microtubule-dependent slow axonal transport of neurofilament proteins during the maturation of neuronal cells.

Additional Information

Gene ID 3800

Other Names	CDCBM2; KINN; NKHC; NKHC-2; NKHC2; KIF5C_HUMAN; KIF5C; Kinesin heavy chain neuron-specific 2; Kinesin-1; 3.6.4.-; KIAA0531; KIF5C_RAT; kinesin family member 5C; neuron-specific kinesin heavy chain 2
Dilution	IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. 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.

Protein Information

Name	KIF5C
Synonyms	KIAA0531, NKHC2
Function	Microtubule-associated force-producing protein that may play a role in organelle transport. Has ATPase activity (By similarity). Involved in synaptic transmission (PubMed: 24812067). Mediates dendritic trafficking of mRNAs (By similarity). Required for anterograde axonal transportation of MAPK8IP3/JIP3 which is essential for MAPK8IP3/JIP3 function in axon elongation (By similarity).
Cellular Location	Cytoplasm, cytoskeleton. Cell projection, dendrite. Note=Abundant in distal regions of dendrites.
Tissue Location	Highest expression in brain, prostate and testis, and moderate expression in kidney, small intestine and ovary

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