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# KIF1B Rabbit pAb

Catalog # AP99666

## Product Information

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| **Application** | IHC-P, IHC-F, IF |
| **Primary Accession** | O60333 |
| **Other Accession** | O60333 |
| **Reactivity** | Rat |
| **Predicted** | Pig, Human, Mouse, Chicken, Dog, Sheep |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 204476 |
| **Physical State** | Liquid |
| **Immunogen** | KLH conjugated synthetic peptide derived from human KIF1B |
| **Epitope Specificity** | 13-120/1816 |
| **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. Unc-104 subfamily. Contains 1 FHA domain. Contains 1 kinesin-motor domain. Contains 1 PH domain. |
| **SUBUNIT** | Interacts (via C-terminus end of the kinesin-motor domain) with CHP1; the interaction occurs in a calcium-dependent manner (By similarity). Interacts with KBP. |
| **DISEASE** | Defects in KIF1B are the cause of Charcot-Marie-Tooth disease type 2A1 (CMT2A1) [MIM:118210]. CMT2A1 is a form of Charcot-Marie-Tooth disease, the most common inherited disorder of the peripheral nervous system. Charcot-Marie-Tooth disease is classified in two main groups on the basis of electrophysiologic properties and histopathology: primary peripheral demyelinating neuropathy or CMT1, and primary peripheral axonal neuropathy or CMT2. Neuropathies of the CMT2 group are characterized by signs of axonal regeneration in the absence of obvious myelin alterations, normal or slightly reduced nerve conduction velocities, and progressive distal muscle weakness and atrophy. Defects in KIF1B are the cause of susceptibility to neuroblastoma type 1 (NBLST1) [MIM:256700]. A common neoplasm of early childhood arising from embryonic cells that form the primitive neural crest and give rise to the adrenal medulla and the sympathetic nervous system. Defects in KIF1B are a cause of susceptibility to pheochromocytoma (PCC) [MIM:171300]. A catecholamine-producing tumor of chromaffin tissue of the adrenal medulla or sympathetic paraganglia. The cardinal symptom, reflecting the increased secretion of epinephrine and norepinephrine, is hypertension, which may be persistent or intermittent. |
| **Important Note** | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Background Descriptions** | KIF1B, or kinesin-like protein (Klp) functions as a motor for mitochondrial transport, and has a microtubule plus end-directed motility. The KIF1B beta isoform is abundant in brain, while the alpha isoform is abundant in skeletal muscle. Mutations in the KIF1B gene are the cause of Charcot-Marie-Tooth disease type 2A1, which is a primary peripheral axon neuropathy. The KIF1B beta isoform is down-regulated in sporadic amyotrophic lateral sclerosis |

(ALS).

## Additional Information

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| **Gene ID** | 23095 |
| **Other Names** | CMT2; CMT2A; CMT2A1; HMSNII; KLP; NBLST1; A530096N05Rik; D4Mil1e; KIF1Bp130; KIF1Bp204; KIF1B_HUMAN; KIF1B; 5.6.1.3; KIAA0591; KIAA1448; KIF1B_MOUSE; KIF1B_RAT; kinesin family member 1B; Charcot-Marie-Tooth neuropathy type II |
| **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

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| **Name** | KIF1B ( HGNC:16636) |
| **Function** | Has a plus-end-directed microtubule motor activity and functions as a motor for transport of vesicles and organelles along microtubules. |
| **Cellular Location** | Cytoplasm, cytoskeleton {ECO:0000250\|UniProtKB:Q60575}. Note=Has a plus-end-directed microtubule motor activity and therefore associates with microtubules {ECO:0000250\|UniProtKB:Q60575} [Isoform 3]: Mitochondrion. Note=Associates with mitochondria and mediates their movement along microtubules {ECO:0000250\|UniProtKB:Q60575} |
| **Tissue Location** | Isoform 3 is abundant in the skeletal muscle. It is also expressed in fetal brain, lung and kidney, and adult heart, placenta, testis, ovary and small intestine. Isoform 2 is abundant in the brain and also expressed in fetal heart, lung, liver and kidney, and adult skeletal muscle, placenta, liver, kidney, heart, spleen, thymus, prostate, testis, ovary, small intestine, colon and pancreas |

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