Recombinant Human KLC1, His-tagged

Cat. No. KLC1-27879TH **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant fragment, corresponding to amino acids 301-578 of Human Kinesin 2, with an N terminal His tag; MWt 32kDa.
Species	Human
Source	E.coli
ProteinLength	301-578 a.a.
Description	Conventional kinesin is a tetrameric molecule composed of two heavy chains and two light chains, and transports various cargos along microtubules toward their plus ends. The heavy chains provide the motor activity, while the light chains bind to various cargos. This gene encodes a member of the kinesin light chain family. It associates with kinesin heavy chain through an N-terminal domain, and six tetratricopeptide repeat (TPR) motifs are thought to be involved in binding of cargos such as vesicles, mitochondria, and the Golgi complex. Thus, kinesin light chains function as adapter molecules and not motors per se. Although previously named "kinesin 2", this gene is not a member of the kinesin-2 / kinesin heavy chain subfamily of kinesin motor proteins. Extensive alternative splicing produces isoforms with different C-termini that are proposed to bind to different cargos; however, the full-length nature and/or biological validity of most of these variants have not been determined.
Conjugation	HIS
Tissue specificity	Found in a variety of tissues. Mostly abundant in brain and spine.

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Form	Lyophilised:Reconstitute with 54 µl aqua dest.
Storage buffer	Preservative: NoneConstituents: 0.5% Trehalose, 6M Urea, 100mM Sodium phosphate, 10mM Sodium chloride, pH 4.5
Storage	Shipped at 4°C. Upon delivery aliquot and store at -80oC. Avoid freeze / thaw cycles.
Sequences of amino acids	NNLAVLYGKRGKYKEAEPLCKRALEIREKVLGKDHPDVAK QLNNLALLCQNQGKYE EVEYYYQRALEIYQTKLGPDDP NVAKTKNNLASCYLKQGKFKQAETLYKEILTRAHE REF GSVDDENKPIWMHAEEREECKGKQKDGTSFGEYGGWYK ACKVDSPTVTTTL KNLGALYRRQGKFEAAETLEEAAMRSR KQGLDNVHKQRVAEVLNDPENMEKRRS RESLNVDVVKY ESGPDGGEEVSMSVEWNGDGTGSLKRSGSFSKLRASIR RSSEK LVR
Sequence Similarities	Belongs to the kinesin light chain family.Contains 6 TPR repeats.

GENE INFORMATION

Gene Name	KLC1 kinesin light chain 1 [Homo sapiens]
Official Symbol	KLC1
Synonyms	KLC1; kinesin light chain 1; kinesin 2 , kinesin 2 60/70kDa , KNS2; hKLC1B; hKLC1G; hKLC1J; hKLC1N; hKLC1P; hKLC1R; hKLC1S; KLC; KNS2A;
Gene ID	3831
mRNA Refseq	NM_001130107
Protein Refseq	NP_001123579

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MIM	600025
Uniprot ID	Q07866
Chromosome Location	14q32.3
Pathway	Arf6 trafficking events, organism-specific biosystem; Factors involved in megakaryocyte development and platelet production, organism-specific biosystem; Hemostasis, organism-specific biosystem; Kinesins, organism-specific biosystem; Salmonella infection, organism-specific biosystem;
Function	microtubule motor activity; motor activity; protein binding;

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