

Product datasheet for **SC319908**

KLHL22 (NM_032775) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KLHL22 (NM_032775) Human Untagged Clone
Tag:	Tag Free
Symbol:	KLHL22
Synonyms:	KELCHL
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene sequence for NM_032775.2

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CCGCCTCGCGCCTCCCGCCTCCCGCCTCCCGCCTCCCTCCAGCTGCGAGTGCGGCCTCGG
CTGGCGGCGGCACAGGCCACAGTTGTAAGGGATCTTGTGGCTGTCAGGATGGCAGAGGA
GCAGGAGTTACCCAGCTCTGCAAGTTGCCTGCACAGCCCTCACACCCACACTGCGTGAA
CAACACCTACCGCAGCGCACAGCACTCCAGGCTCTGCTCCGAGGGCTGCTGGCTCTCCG
GGACAGCGGAATCCTCTTCGATGTTGTGCTGGTGGTGGAGGGCAGACATCGAGGCCCA
TCGCATCCTGCTGGCTGCGTCTCGGATTACTTCAGAGGAATGTTTGTGGGGGATTGAA
GGAGATGGAACAGGAAGAGGTCCCTGATCCACGGTGTCTCTACAATGCTATGTGCCAAAT
CCTACATTTTCATATACACCTCCGAGCTGGAGCTCAGCCTGAGCAATGTACAAGAGACACT
GGTGGCTGCCTGCCAGCTTCAGATCCCAGAAATTATCCATTTCTGCTGTGATTTCTCAT
GTCCTGGGTGGACGAAGAGAATCTTCGATGTCTACCGCTGGCAGAGCTGTTTGACTT
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GACTGACAAGTACCGCCAGCTTCCATTGGAGAAGGTCTACTCCCTCCTCAGCAGCAATCG
CCTGGAGGTCTCCTGCGAGACCGAGGTATATGAGGGGGCCCTTCTCTACCATTATAGCCT
GGAGCAGGTGCAGGCTGACCAGATCTCGCTGCACGAGCCCCAAAGCTCCTTGAGACAGT
GCGGTTTTCCGCTGATGGAAGCTGAGGTCTGCAGCGGCTGCATGACAAGCTGGACCCAG
CCCTTTGAGGGACACAGTGGCCAGCGCCCTCATGTACCACCGGAACGAGAGCCTACAGCC
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CCTGCAGCAGGAGCAGCCGACCTGTCCGTGTGTTGTAGGCAGGTACATCTACGCTGT
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CATTTACGATGTGGAGAAGGACTGCTGGGAGGAAGGGCCCCAGCTGGACAACCTCATCTC
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GACCCCTGACCGCAGCCAGGCCGACCCGGACTTTGCCTCTGAGGTGATGAGTGTGTCTGA
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TGTTGTTGGTCAATGAAATAAGCATCTTACAGAAGGTGTTAACTGTTAAAAA
AAAAAAAAAAAAAAAAAAAA

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Restriction Sites: Please inquire

ACCN: NM_032775

OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
Components:	The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).
Reconstitution Method:	1. Centrifuge at 5,000xg for 5min. 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA. 3. Close the tube and incubate for 10 minutes at room temperature. 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom. 5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.
RefSeq:	<u>NM_032775.2</u> , <u>NP_116164.2</u>
RefSeq Size:	2602 bp
RefSeq ORF:	1905 bp
Locus ID:	84861
UniProt ID:	<u>Q53GT1</u>
Cytogenetics:	22q11.21
Domains:	BTB, Kelch
Gene Summary:	Substrate-specific adapter of a BCR (BTB-CUL3-RBX1) E3 ubiquitin ligase complex required for chromosome alignment and localization of PLK1 at kinetochores. The BCR(KLHL22) ubiquitin ligase complex mediates monoubiquitination of PLK1, leading to PLK1 dissociation from phosphoreceptor proteins and subsequent removal from kinetochores, allowing silencing of the spindle assembly checkpoint (SAC) and chromosome segregation. Monoubiquitination of PLK1 does not lead to PLK1 degradation (PubMed:19995937, PubMed:23455478). The BCR(KLHL22) ubiquitin ligase complex is also responsible for the amino acid-stimulated 'Lys-48' polyubiquitination and proteasomal degradation of DEPDC5. Through the degradation of DEPDC5, releases the GATOR1 complex-mediated inhibition of the TORC1 pathway. It is therefore an amino acid-dependent activator within the amino acid-sensing branch of the TORC1 pathway, indirectly regulating different cellular processes including cell growth and autophagy (PubMed:29769719).[UniProtKB/Swiss-Prot Function] Transcript Variant: This variant (1) represents the longest transcript and encodes the functional protein.