

Product datasheet for **MC200279**

Klh122 (BC005800) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Klh122 (BC005800) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Klh122
Synonyms:	2610318I18Rik; Kelch1
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)



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Fully Sequenced ORF: >BC005800
 GGCGCACGCCGGTAGGATCTGCCTCCCAAGTGCTGGGATTAAGGCATGAGCCACCACTGCCCGCTGACT
 ACAGTAGTGAGGGCTGCTGTGGCTGTCAGGATGGCTGAGGAGCAGGACTTTGCCAGCTGTGCAGGCTGC
 CCACACAGCCCTCCCCTCCCCTGCTGTCAACAATACCTATCGAAGCACACAGCACTCCCAGGCCCTGCT
 CCGGGGCTGCTGGCTTTGCGAGACAGTGGGATCCTCTTTGACGTTGTCTGGTGGTAGAGGGGAAGCAC
 ATTGAGGCCCATCGATTCTGCTAGCTGCATCGTGTGATTATTTTCAGAGGAATGTTTGTGGGGATTGA
 AGGAGATGGAGCAGGAAGAGGTTTGTATCCACGGTGTGCTTACAATGCCATGTGCCAAATCCTGCACTT
 CATATACACTTCTGAACTAGAGCTCAGCCTGAGCAATGTGCAGGAGACCCCTGGTTGCTGCCTGCCAATT
 CAGATACCAGAAATTATCCACTTCTGCTGTGATTTCTCATGTGATGGGTAGATGAGGAGAATATCCTTG
 ATGTCTACCGGCTAGCAGACCTCTTTGACTTGAACCATCTGACCCAACAGCTAGATACCTACATCCTCAA
 AAATTTGTGGCCTTCTCCAGAAGTACCAAGTACCAGCCTTCCCTTGGAGAAGGTCTACTCTCTCCTC
 AGCAGCAATCGCCTGGAGTTTCTGTGAGACTGAAGTGTATGAAGGGGCCCTGCTCTACCATTACTCCC
 TAGAGCAGGTGCAGGCTGACCAGATCTCACTGAATGAGCCCCCAAGCTCTAGAGACTGTGCGCTTTCC
 CCTGATGGAAGCTGAGGTCCTTACGCGGCTGCATGACAAGCTTGGTCTAGCCCACTGAGGGACACAGTG
 GCCAGTGCCCTTATGTACCACCGAATGAGATCCTGCAGCCAGCCTTACGGGCCACAGACAGAGCTTC
 GCTCGGACTTCCAGTGTGTGTGGGCTTTGGGGTATTACTCCACACCTGTACAACTCCTCAGTGACCA
 GGCAAGTACCTGAATCCTCTACTGGGAGAGTGGAAACACTTCACTGCCTCTCTGGCGCCCCGAATGTCC
 AATCAGGGCATTGCAGTCTCAACAATTCGTGTACTTAATTGGAGGGGACAATAATGTCCAAGGATTTT
 GAGCTGAGTCCCAGTGTGGAGGTATGACCCAAGGCACAATCGCTGGTCCAGATCCAGTCTTGCAGCA
 AGAACATGCAGACCTATGTGTGTGTGTAGTGGGCAAGTACATCTATGCTGTGGCAGGCGGTGACTACCAC
 AATGACCTGAGTGTGTGGAGCGCTATGACCTGCCACCAACTCCTGGGACTATGTGGCCCCACTCAAGA
 AGGAGGTATATGCCATGCAGGCACCACACTGCAGGGGAAGATGTATATTACCTGTGGTGCAGAGGAGA
 GGACTACCTGAAAGAGACACACTGCTATGACCCAGGAAGCAACACGTGGCATACTCTGGTGCAGGGCCT
 GTGCGACGGGCTGGCATGGCATGGCTGCCCTCCTCGACAAGCTGTTTGTGATTGGAGGCAGCAACAATG
 ATGCTGGCTACAGAAGGGATGTGCACCAGTGGCTTGTACAGTTGTACATCTCGTCAGTGGTATCGGT
 CTGCCACTCCCAGTGGGCATGGTGGAGCTGGCATTGCTGTGCTAGACAGCAGGATATATGTGCTGGGT
 GGCCGCTCTCACAACCGAGGCAGCCGTACAGGCTACGTGCACATCTACGACATGGAGAAAGACTGCTGGG
 AAGAGGGACCCAGCTGAACAATCCATCTCAGGCCTGGCAGCCTGTGTGCTCACCTGCCTCGATCCCT
 GCTCCATGAGCAACCCGAGGGACCCCAACCGTAGCCAGGCAGATGCAGACTTTGCTTCTGAGGTGATG
 AGTGTGCTGACTGGGAAGAGTTTGACAACTCTAGCGAGGACTAGGGCTCTCCCCAGTGTGGGTGTTT
 AGGAAGGGTAATGGGCAGTGAAGCCGTAGAGCCTGGGTTAGAACCAGGCTCTAGGGGAGGGGCCCT
 CCTAAGCCATCCTGGTTCACCAGCTGCCCTTTCACTCTGTTTCTTCAACCAGCCAGCTGCCAGCATT
 GTAACCTCTGTGGCTGTGAATTACATTACAAGAAAAGTGTGGGGGGAAGGCTGTATCATCAGAGGGA
 ATGACCCATCCTATAAACTCTGAATGAGTGGGATCTATTTGGCCGCTTCTTCTCCCTAGTCTGGTCCC
 TGATGGGTTAAGTAAGTCCTTCTTTCAAGAGATCCTGGGGAGAGCACTCCTAGCCATAGCCAAAGTTTG
 TGGCTCCCTTTCTGTGAACCGTGGTCACTCTGGTGAAGCAGCCAGCTGCCTGCAGCCAGGGCCTTGAGC
 ACTGGGGAGCTCTCAAGGTATACTCTTAGAGTAACATAACCTGTAACCTGGACCTGGAGATGAAGAGAT
 ACCCTCATTGCTCTGTGCTGACCCAATATTGTTGAAAAATGAAATAAAGCATTATGCAAAAGGTGTAC
 ATCTAAAAAAAAAAAAAAAA

- Restriction Sites:** RsrII-NotI
- ACCN:** BC005800
- Insert Size:** 1905 bp
- 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).
- 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: [BC005800](#), [AAH05800](#)

RefSeq Size: 2610 bp

RefSeq ORF: 1905 bp

Locus ID: 224023

Cytogenetics: 16 11.01 cM

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 (By similarity). 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]