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Product datasheet for MR217247

Klhl12 (NM_153128) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Klhl12 (NM_153128) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Klhl12
Synonyms:	C3ip1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR217247 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGGCGGCATTATGGCCCCTAAAGACATAATGACAAACACTCACGCTAAGTCCATCCTCAACTCCATGA
ACTCCCTCAGGAAGAGCAACACCCTCTGTGATGTGACCTTGAGAGTGGAGCAGAAAGACTTCCCTGCGCA
TCGGATTGTGCTGGCCGCCTGCAGTGATTATTTCTGTGCCATGTTCACTAGTGAGCTTTCAGAGAAGGGG
AAGCCGTATGTTGACATTCAAGGTTTAACTGCTGCTACCATGGAGATCCTGCTGGACTTCGTGTACACAG
AAACAGTACATGTGACAGTGGAGAATGTTCAAGAACTGCTCCCTGCAGCCTGTCTTCTTCAGCTGAAAGG
TGTGAAACAAGCCTGCTGTGAGTTCTTAGAAAGTCAGCTGGATCCATCTAATTGCCTGGGTATCAGGGAT
TTTGCTGAAACTCACAATTGCGTTGACCTGATGCAAGCAGCTGAGGTGTTTAGCCAGAAGCATTTTCCTG
AAGTGGTGCAGCACGAGGAGTTCATTCTTCTGAGTCAAGGGGAGGTGGAGAAGCTAATCAAGTGCGACGA
GATTCAGGTGGATTCTGAAGAGCCAGTCTTTGAGGCTGTTATCAACTGGGTGAAGCATGCCAAGAAGGAG
CGAGAAGAGTCTTTACCTGACCTCTTACAGTATGTTCGGATGCCCCTGCTGACCCCCAGGTACATTACAG
ATGTAATTGATGCTGAGCCTTTCATCCGCTGTAGTTTACAATGCAGAGATCTAGTTGATGAAGCAAAGAA
GTTTCACCTGAGGCCTGAACTTCGGAGTCAGATGCAAGGACCCAGAACAAGGGCCCGGCTAGGAGCCAAT
GAAGTGCTTCTGGTGGTTGGGGGCTTCGGAAGCCAGCAGTCTCCTATTGATGTGGTAGAGAAGTATGACC
CCAAGACACAGGAGTGGAGCTTTTTACCAAGTATCACTCGCAAGAGACGGTATGTGGCCTCAGTTTCCTT
ACATGATCGGATCTATGTAATTGGTGGCTACGATGGCCGTTCCCGCCTCAGTTCGGTGGAATGTCTAGAC
TATACAGCAGACGAAGATGGAGTGTGGTACTCTGTGGCCCCTATGAATGTGCGGCGAGGCCTTGCTGGAG
CCACCACTCTGGGAGATATGATTTACGTCTCTGGAGGCTTTGATGGAAGTAGGCGTCATACAAGTATGGA
GCGGTATGACCCAAACATCGATCAGTGGAGTATGCTGGGAGATATGCAGACAGCTCGAGAGGGTGCAGGA
CTAGTAGTGGCCAGCGGAATAATCTATTGTCTAGGAGGATATGATGGCTTGAACATATTAAATTCAGTTG
AGAAATATGATCCCCATACAGGACACTGGACTAACGTTACGCCTATGGCCACCAAGCGTTCTGCTTATAA
CATTCGCACTGATTCCTGGACAACTGTCACAAGTATGACCACGCCTCGATGCTATGTAGGGGCCACAGTG
CTTCGAGGGAGACTCTATGCAATTGCAGGATACGATGGGAATTCTCTGCTGAGCAGCATTGAGTGTTATG
ACCCTATCATCGACAGCTGGGAAGTAGTGGCCTCCATGGGAACCCAGCGTTGTGATGCTGGTGTGTGTGT
TCTCCGAGAAAAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

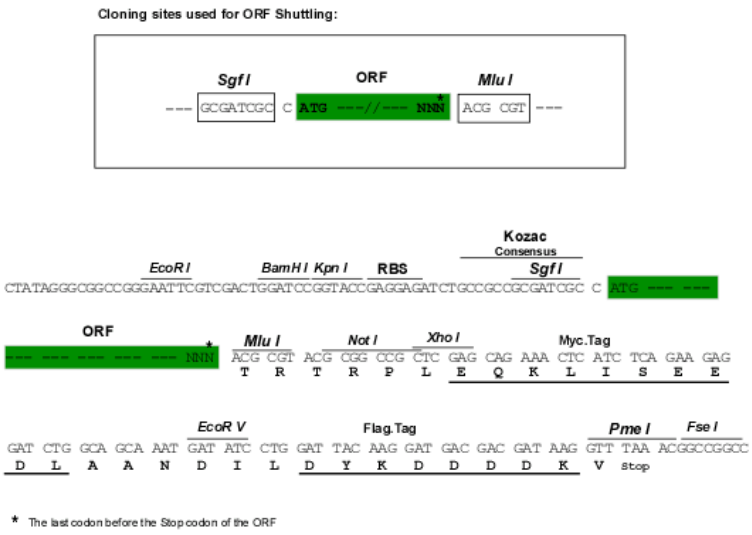
>MR217247 protein sequence
Red=Cloning site Green=Tags(s)

MGGIMAPKDIMTNTHAKSILNSMNSLRKSNTLCDVTLRVEQKDFPAHRIVLAACSDYFCAMFTSELSEKG
KPYVDIQGLTAATMEILLDFVYTETVHVTVENVQELLPAACLLQLKGVKQACCEFLESQLDPSNCLGIRD
FAETHNCVDLMQAAEVFSQKHFPEVVQHEEFILLSQGEVEKLIKCDEIQVDSEEPVFEAVINWVKHAKKE
REESLPDLLQYVRMPLLTPRYITDVIDAEPFIRCSLQCRDLVDEAKKFHLRPELRSQMQGPRTRARLGAN
EVLLVVGGFGSQQSPIDVVEKYDPKTQEWSFLPSITRKRRYVASVSLHDRIYVIGGYDGRSRLSSVECLD
YTADEDGVWYSVAPMNVRRGLAGATTLGDMIYVSGGFDGSRRHTSMERYDPNIDQWSMLGDMQTAREGAG
LVVASGIIYCLGGYDGLNILNSVEKYDPHTGHWTNVTPMATKRSAYNIRTDSWTTVTSMTTPRCYVGATV
LRGRLYAIAGYDGNSLLSSIECYDPIIDSWEVVASMGTQRCDAGVCVLREK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_153128

ORF Size: 1626 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. More info

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

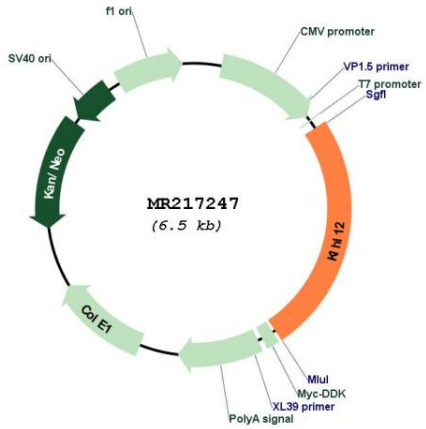
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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:	NM_153128.1
RefSeq Size:	3196 bp
RefSeq ORF:	1626 bp
Locus ID:	240756
UniProt ID:	Q8BZM0
Cytogenetics:	1 E4
MW:	60.6 kDa
Gene Summary:	Substrate-specific adapter of a BCR (BTB-CUL3-RBX1) E3 ubiquitin ligase complex that acts as a negative regulator of Wnt signaling pathway and ER-Golgi transport. The BCR(KLHL12) complex is involved in ER-Golgi transport by regulating the size of COPII coats, thereby playing a key role in collagen export, which is required for embryonic stem (ES) cells division: BCR(KLHL12) acts by mediating monoubiquitination of SEC31 (SEC31A or SEC31B). The BCR(KLHL12) complex is also involved in neural crest specification: in response to cytosolic calcium increase, interacts with the heterodimer formed with PEF1 and PDCD6/ALG-2, leading to bridge together the BCR(KLHL12) complex and SEC31 (SEC31A or SEC31B), promoting monoubiquitination of SEC31 and subsequent collagen export. As part of the BCR(KLHL12) complex, also acts as a negative regulator of the Wnt signaling pathway by mediating ubiquitination and subsequent proteolysis of DVL3. The BCR(KLHL12) complex also mediates polyubiquitination of DRD4 and PEF1, without leading to degradation of these proteins. [UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR217247