

Product datasheet for **RC205347**

KLHL2 (NM_007246) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	KLHL2 (NM_007246) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	KLHL2
Synonyms:	ABP-KELCH; MAV; MAYVEN
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC205347 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGGAGACGCCGCCGCTGCCTCCCGCATGCACAAAGCAGGGTCATCAGAAGCCTCTCGATTCAAAGATG
 ATAATACCGAAAAACACTGCCAGTGACAGTGAATCCTTGGCATATGAAGAAAGCTTCAAAGTCATGAA
 CGAATTAAGAAGTCAAAATTTGCTGTGCGATGTACAATTGTGGCAGAAGACATGGAAATTTCTGCTCAT
 AGAGTGGTGTGGCCGCTGTAGTCTTATTTTCATGCCATGTTTACAGGTGAGATGAGTGAGAGCCGAG
 CAAAGAGAGTTAGAATAAAAGAGGTAGATGGCTGGACCTGAGGATGCTAATTGATTATGTTTACACTGC
 AGAAATTCAGGTTACAGAAGAAAATGTACAGGTACTTCTCCAGCAGCTGGTCTTTACAGTTACAGGAT
 GTGAAGAAGACTTGTGTGAATTTTGAATCCCAGTTCACCCTGTCACTGCTTAGGAATCCGGGCTT
 TTGCTGATATGCATGCATGTACTGACCTTCTGAACAAGGCCAACACCTATGCAGAGCAACATTTTGCAGA
 TGTTGTACTTAGTGAAGAATTTCTCAATCTTGGCATCGAACAAGTGTGCAGCTTAATCTCAAGTGACAAA
 CTTACCATTTCTCAGAAGAGAAGGTATTTGAAGCAGTAATAGCATGGGTGAACCATGACAAGGATGTGA
 GGCAAGAGTTTATGGCCGACTGATGGAACATGTACGGTTACCTTTGCTTCTCGGGAATATTTAGTTCA
 GAGGGTTGAAGAGGAAGCATTGGTCAAGAATAGCAGTGCTTGCAAAGATTACCTCATTGAAGCAATGAAG
 TACCATTTGCTGCCAACAGAGCAGCGTATATTAATGAAGAGTGTCCGGACCCGGCTGAGGACACCCATGA
 ACCTTCCCAAATGATGGTGGTGGTGGGGCCAAAGCAAGGCTATCCGGAGTGTGGAATGCTATGA
 CTTTAAAGAAGAAAGGTGGCACCAGTAGCAGAGTTGCCCTCCAGGAGGTGCAGGGCAGGCATGGTCTAC
 ATGGCTGGACTTGTGTTTGTGCTTGGTGGCTTAAATGGCTCATTAAAGATTTCGACTGTAGATTCCTACG
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 GTTAAATGGATTATTATACGCTGTGGGAGGCTTTGATGGGAGTACAGTTTGTCTGTGGAAGCATA
 AACATAAAGTCTAATGAGTGGTTTCATGTAGTCCCATGAATACAAGGAGGAGCAGTGTGGTGTGGGTG
 TTGTTGGAGGTTTGTCTATGCTGTAGGAGTTATGATGTAGCATCACGTGAGTGTCTTAGCACAGTAGA
 ATGCTATAATGCTACAACAAATGAGTGGACCTATATAGCAGAAATGAGCACCAGGCGGAGTGGAGCAGGT
 GTTGGTGTGTTAAACAATTTATTGTATGCTGTAGGAGTGCATGATGGCCCTTTAGTACGAAAAAGTGTG
 AAGTATATGATCCCACCACTAACGCATGGAGACAGTTGCAGATATGAACATGTGCAGAAGAAATGCAGG
 AGTTTGTGCAGTAAATGGTCTGTATATGTTGTTGGAGGGGATGATGGTTCCTGTAACCTGGCGTCAGTA
 GAATATTATAACCAACAACCGATAAATGGACAGTTGTGTCATCGTGTATGAGCACAGGGAGAAGTTATG
 CAGGGGTACAGTTATTGATAAACGATTA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC205347 protein sequence
 Red=Cloning site Green=Tags(s)

METPPLPACTKQGHQKPLDSKDDNTEKHCPVTVNPWHMKAFKVMNELRSQNLCDVTIVAEDMEISAH
 RVVLAACSPYFHAMFTGEMSESRAKRVRIKEVDGWTLRMLIDYVYTAIEIQVTEENVQVLLPAAGLLQLQD
 VKKTCCEFLSQLHPVNCLGIRAFADMHACTDLLNKANTYAEQHFADVLSSEFLNLGIEQVCSLISDDK
 LTISSEEVFEAVIAWVNHDKDVRQEFMARLMEHVRLPLLPREYLVQRVEEEALVKNSSACKDYLIEAMK
 YHLLPTEQRILMKSVRTRLRTPMNLPKLMVVVGGQAPKAIRSVCEYDFKEERWHQVAELPSRRCRAGMVY
 MAGLVFAVGGFNGSLRVRTVDSYDPVKDQWTSVANMRDRRSTLGAAVLNGLLYAVGGFDGSTGLSSVEAY
 NIKSNEWFHVAPMNTRRSSVGVVGGLLYAVGGYDVASRQCLSTVECYNATTNEWYIAEMSTRRSAG
 VGVLNLLYAVGGHDGPLVRKSEVYDPTTNAWRQVADMMNCRNAGVCAVNGLLYVVGDDGSCNLSAS
 EYYPNTDKWTVVSSCMSTGRSYAGVTVIDKRL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6138_a12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_007246

ORF Size: 1779 bp

OTI Disclaimer: 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_007246.2](#), [NP_009177.2](#)

RefSeq Size: 3137 bp

RefSeq ORF: 1782 bp

Locus ID: 11275

UniProt ID: [O95198](#)

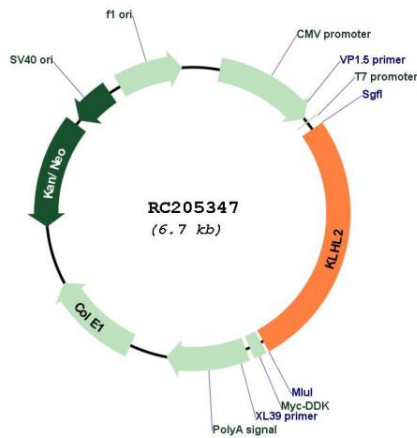
Cytogenetics: 4q32.3

Domains: BTB, Kelch

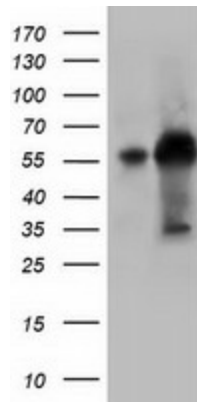
MW: 66.1 kDa

Gene Summary: Component of a cullin-RING-based BCR (BTB-CUL3-RBX1) E3 ubiquitin-protein ligase complex that mediates the ubiquitination of target proteins, such as NPTXR, leading most often to their proteasomal degradation (By similarity). Responsible for degradative ubiquitination of the WNK kinases WNK1, WNK3 and WNK4. Plays a role in the reorganization of the actin cytoskeleton. Promotes growth of cell projections in oligodendrocyte precursors. [UniProtKB/Swiss-Prot Function]

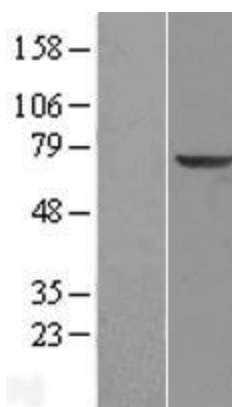
Product images:



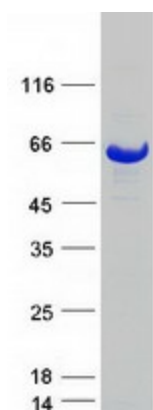
Circular map for RC205347



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY KLHL2 (Cat# RC205347, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-KLHL2 (Cat# [TA501617]). Positive lysates [LY402119] (100ug) and [LC402119] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY402119]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205347 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified KLHL2 protein (Cat# [TP305347]). The protein was produced from HEK293T cells transfected with KLHL2 cDNA clone (Cat# RC205347) using MegaTran 2.0 (Cat# [TT210002]).