

Product datasheet for **RC201459**

PLEK2 (NM_016445) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PLEK2 (NM_016445) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PLEK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201459 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGGACGGCGTGCTCAAGGAGGGCTTCTGGTCAAGAGGGGCCACATTGTCCACAAGTGAAGGCGC
GATGGTTCATCCTTCGGCAGAACACGCTGGTGTACTACAAGCTTGAGGGGGTTCGGAGAGTGACCCCTCC
CAAGGGCCGGATCCTCCTGGATGGCTGCACCATCACCTGCCCTGCCTGGAGTATGAAAACCGACCGCTC
CTCATTAAAGCTGAAGACTCAAACATCCACGGAGTACTTCTGGAGGCCTGTTCTCGAGAGGAGCGGGATG
CCTGGCCCTTTGAGATCACGGGGCTATTCATGCAGGGCAGCCGGGAAGTCCAGCAGCTGCACAGCCT
GAGAAACTCCTTCAAGCTGCCCCGCACATCAGCCTGCATCGCATTGTGGACAAGATGCACGATAGCAAC
ACCGGAATCCGTTCAAGCCCAACATGGAGCAGGGAAGCACCTATAAAAAGACCTTCTCGGCTCCTCCC
TGGTGGACTGGCTCATCTCCAACAGCTTACGGCCAGCCGTCTGGAGGCGGTGACCTGGCCTCCATGCT
CATGGAGGAGAACTTCTCAGGCCTGTGGGTGTCCGAAGCATGGGAGCCATTCGCTCTGGGGATCTGGCC
GAGCAGTTCCTGGATGACTCCACAGCCCTGTACACTTTTGCTGAGAGCTACAAAAAGAAGATAAGCCCCA
AGGAAGAAATTAGCCTGAGCACTGTGGAGTTAAGTGGCACGGTGGTGAACAAGGCTACCTGGCCAAGCA
GGGACACAAGAGGAAAACTGGAAGGTGCGTTCGTTTGTCTAAGGAAGGATCCAGCTTCTGCATTAC
TATGACCTTCCAAAGAAGAGAACAGGCCAGTGGGTGGGTTTTCTTCTCGTGGTTACTCGTGTCTGCTC
TGGAAGATAATGGCGTTCCTCACTGGGGTTAAAGGGAATGTCCAGGAAACCTCTCAAAGTGATTACTAA
GGATGACACACACTATTACATTCAGGCCAGCAGCAAGGCTGAGCGAGCCGAGTGGATTGAAGCTATCAAA
AAGCTAACA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC201459 protein sequence
Red=Cloning site Green=Tags(s)

MEDGVLKEGFLVCRGHIVHNWKARWFILRQNTLVYYKLEGRRVTPPKGRILLDGCITCPCLEYENRPL
 LIKLKTQTSTEYFLEACSRERDAWAFEITGAIHAGQPGKVQQLHSLRNSFKLPPHISLHRIVDKMHDSN
 TGIRSSPNMEQGSTYKKTFLGSSLDVWLI SNSFTASRLEAVTLASMLMEENFLRPVGVRSMGAIRSGDLA
 EQFLDDSTALYTFAESYKKKISPKEEISLSTVELSGTVVKQGYLAKQGHKRKNWVRRFVLRKDP AFLHY
 YDPSKEENRPVGGFSLRGLSLVALEDNGVPTGVKGNVQGNLFKVI TKDDTHYIIQASSKAERAEWIEAIK
 KLT

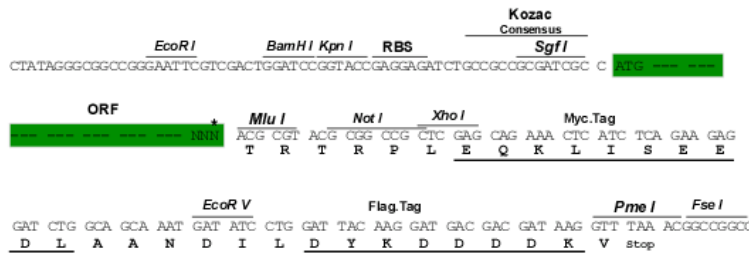
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6300_e11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_016445

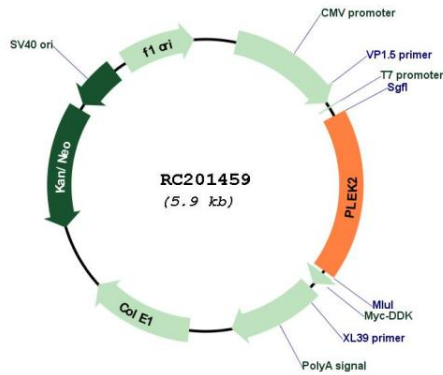
ORF Size: 1059 bp

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.

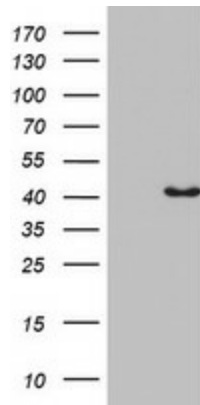
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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:	<ol style="list-style-type: none">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_016445.3</u>
RefSeq Size:	1479 bp
RefSeq ORF:	1062 bp
Locus ID:	26499
UniProt ID:	<u>Q9NYT0</u>
Cytogenetics:	14q23.3-q24.1
Domains:	DEP, PH
MW:	40 kDa
Gene Summary:	The protein encoded by this gene associates with membrane-bound phosphatidylinositols generated by phosphatidylinositol 3-kinase. The encoded protein then interacts with the actin cytoskeleton to induce cell spreading. In conjunction with complement component 1, q subcomponent, B chain (C1QB), this gene shows an increase in expression in melanoma cells and may serve as an accurate biomarker for the disease. [provided by RefSeq, Dec 2015]

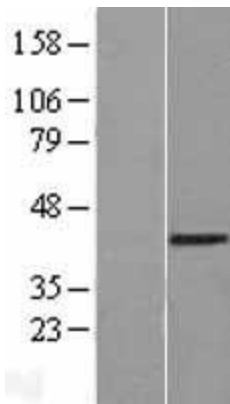
Product images:



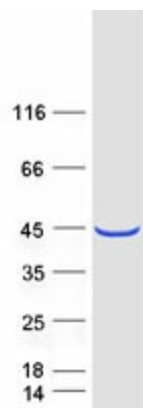
Circular map for RC201459



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PLEK2 (Cat# RC201459, 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-**PLEK2**(Cat# [TA802769]). Positive lysates [LY413976] (100ug) and [LC413976] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY413976]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201459 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PLEK2 protein (Cat# [TP301459]). The protein was produced from HEK293T cells transfected with PLEK2 cDNA clone (Cat# RC201459) using MegaTran 2.0 (Cat# [TT210002]).