

Product datasheet for **RC218762**

PACS2 (NM_001100913) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PACS2 (NM_001100913) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PACS2
Synonyms:	EIEE66; PACS-2; PACS1L
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide
Sequence:

>RC218762 representing NM_001100913
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGCCGAGCGAGGCCGCTCGGCCTCCCCGGCGCGCCCGCGCGCTCAACACGCCCGTGCCCATGAACC
 TGTTCCGCCACCTGGGAGGTGGACGGCTCCAGCCCCAGCTGCGTGCCAGGTTGTGACGCCTGACTCTGAA
 GAAGCTGGTGGTCTTCAAGGAGCTGGAGAAGGAGCTGATCTCCGTGGTATCGCTGTCAAGATGCAGGGC
 TCCAAACGAATCCTGCGGTCCCATGAGATTGTGCTGCCCCCAAGTGGACAAGTGGAGACAGACCTGGCCC
 TGACCTTCTCCTTGACGATCCTCACTTCTTGAAGAGGGAAGGCAACAAGCTTCAGATCATGCTGCAGCG
 CAGAAAGCGCTACAAGAACAACAACCATCTGGGCTACAAGACGCTGGCCGCGGGCTCCATCAGCATGGCT
 GAGGTGATGCAACACCCGCTGAAGGTGGCCAGGTGCTGAGCCTTCGACGAGCATCAAGGAGGCCCCCG
 TCAAGGCGGCCGAGATCTGGATCGCTCCCTGTCCAGCCAGCCATTGACCACGAAGACAGCACCATGCA
 GGCCGGCCCCAAGCCAAGTCCACGGATAACTACTCCGAGGAGGATATGAGAGTTCCTCCTCCGAGCAG
 GAGGCCAGTGACGACGCCGTGCAGGGGCGAGGACTTGGACGAGGAGGACTTGGACGTGGGGGAGCCGAAGA
 AGCAGCGGAGATCGATTGTAAGAACGACGTCCATGACCAGGCAACAGAATTCAAGCAGAAAAGTGGTAGC
 GCTGCTGCGGAGGTTCAAAGTGTCCGACGAGGTCTGGACTCGGAGCAGGACCCTGCGGAGCACATCCCC
 GAGGCAGAGGAGGACCTGGACCTCCTGTATGACACCTGGACATGGAGCACCCACGACAGCGGCCCCCG
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 GCACTCGAGCTCGCAGACGGAGATTGGGAGCATCCACAGCGCCCGCAGCCACAAGGAGCCCCAAGCCCG
 GCTGACGTGCCGAGAAGACGCGGTCCCTGGGAGGCAGGACCCGAGCGACAGTGTCTGACACGGTGG
 CCCTCGGTGTGCCAGGCCGAGGAGCACCTGGACAGCCTGAGGACAGCCCCGAGGCTGAGGCCCTCCAC
 CCTGGATGTGTTACGGAGAGGCTGCCGCCAGCGGGAGGATCACCAAGACAGAGTCCCTTGTATCCCC
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 GGCACACGCTCCCGTGGTGTGCACGTGCTCTCCTGCGGACGTCCAGGCGGCCTCAGCACCATCGTCTC
 ACGGATACAGAGATACTGCAACTGCAATCCCAGCCCCGACCCCGTGAAGATCGCCGTGGCGGGAGCG
 CAGCATTACCTCAGTGCCATCCTGCGGCTCTTTGTGGAGCAGCTGTCCACAAGACCCGACTGGCTCG
 GCTACATGCGCTTCTGTGTCATCCCACTGGGCTCCCACCCCGTGGCCAGGTACCTAGGCTCCGTGGACTA
 CCGCTACAACAATTCTTCCAGGACCTGGCCTGGAGAGACCTGTTCAACAAGCTGGAGGCCCCAGAGTGGC
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 TCCCCATCGCAGAGGCCATGCTGACCTACAAGCAGAAGAGCCCTGACGAAGATCCTCCAAAAGTTCAT
 TCCCTTTGTGGGGTGTGAAGTTGGAATTGTGGAGCCATCCTCGGCCACATCAGGCGACTCGGACGAC
 GCGGCCCCCTCGGGCTCTGGCACGCTCTCCTCCACCCCGCCGTCGCATCTCCTGCGGCCAAGGAGGCCT
 CACCCACCCCGCCCTCCTCCCGTGGTGGAGCGGAGCCCTGTCTCCCCAGCCAGGTGTGCGCGCCGA
 GCTGATGGGGCTGCAGGTGGACTACTGGACGGCAGCACAGCCTGCGGACAGGAAGAGGGACGCCGAGAAG
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 ACGTCAAGTTCTCCAGCTGGCCGCGCAGTGGTCTCGCACGTGAAGCACTTCCCATCTGCATCTTCGG
 AACTCCAAGGCCACCTTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC218762 representing NM_001100913
 Red=Cloning site Green=Tags(s)

MAERGRGLPGAPGALNTPVPMNLFATWEVDGSSPSCVPRLCSLTLKKL VVFKLEKELISVVIIVKMQG
 SKRILRSHEIVLPPSQGVETDLALTFSLQYPHFLKREGNKLQIMLQRRKRYKNRTILGYKTLAAGSISMA
 EVMQHPSEGGQVLSLCSIIKEAPVKA AEIWIASLSSQPIDHEDSTMQAGPKAKSTDNYSEEEYESFSSEQ
 EASDDAVQGQDLDEDDFDVGGPKKQRRSIVRTTSMTRQQNFQKQVVALLRRFKVSDVLDSEQDPAEHIP
 EAEDLDLLYDTLDMEHPSDSGPDMEDDSVLSTPKPKLRPYFEGLSHSSSQTEIGSIHSARSHKEPPSP
 ADVPEKTRSLGGRQPSDSVSDTVALGVPGPREHPGQPEDSPEAEASTLDVFTERLPPSGRITKTESLVIP
 STRSEKQAGRRGRSTSLKERQAARPQNERANSLDNERC PDARSQVQLQIPRKT VYDQLNHILISDDQ
 LPENIILVNTSDWQGF LSDLVLRHTLPVVCTCSPADVQAAFSTIVSRIQRYCNCNSQPPTPVKIAVAGA
 QHYLSAILRFLVEQLSHKTPDWLGYMRFLVIPLGSHPVARYLGSVDYRYNFFQDLAWRDLFNKLEAQSA
 VQDTPDIVSRITQYIAGANCAHQLPIAEAMLTYKQKSPDEESSQKFI PFVGVVKGIVPESSATSGSDSD
 AAPSGSGLSSTPPSASPAAKEASPTPPSPSVSGGLSSPSQGVGAELMGLQVDYWTAAQPADRKRDAEK
 KDLPVTKNTLKCTFRSLQVSRLPSSGEAAATPTMSMTVVTKEKNKVMFLPKKAKDKDVESK SQCIEGIS
 RLICTARQQNMLRVLIDGVECDVKFFQLAAQWSSHVKHFPICFGHSKATF

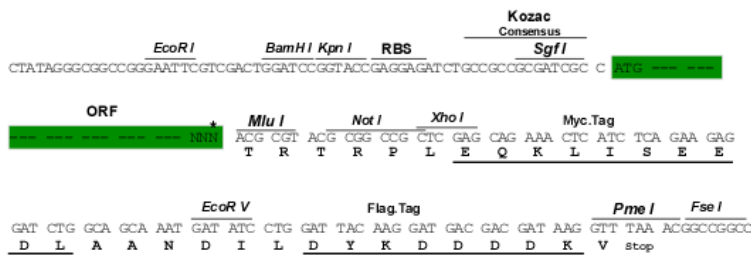
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8021_b03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:

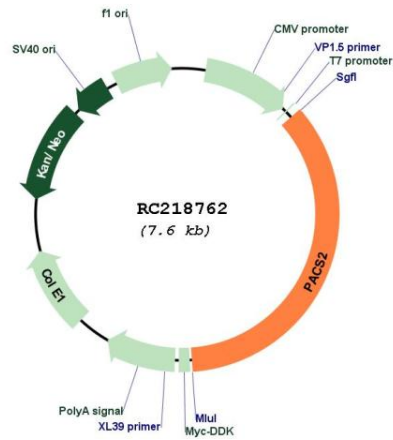


* The last codon before the Stop codon of the ORF

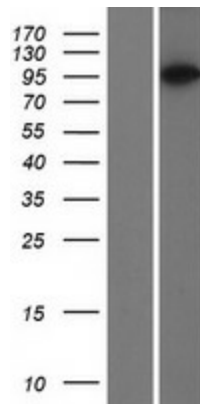
ACCN: NM_001100913

ORF Size:	2679 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:	<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:	NM_001100913.1 , NP_001094383.1
RefSeq Size:	6332 bp
RefSeq ORF:	2715 bp
Locus ID:	23241
UniProt ID:	Q86VP3
Cytogenetics:	14q32.33
MW:	98 kDa
Gene Summary:	Multifunctional sorting protein that controls the endoplasmic reticulum (ER)-mitochondria communication, including the apposition of mitochondria with the ER and ER homeostasis. In addition, in response to apoptotic inducer, translocates BIB to mitochondria, which initiates a sequence of events including the formation of mitochondrial truncated BID, the release of cytochrome c, the activation of caspase-3 thereby causing cell death. May also be involved in ion channel trafficking, directing acidic cluster-containing ion channels to distinct subcellular compartments.[UniProtKB/Swiss-Prot Function]

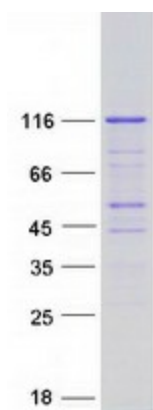
Product images:



Circular map for RC218762



Western blot validation of overexpression lysate (Cat# [LY420308]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218762 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PACS2 protein (Cat# [TP318762]). The protein was produced from HEK293T cells transfected with PACS2 cDNA clone (Cat# RC218762) using MegaTran 2.0 (Cat# [TT210002]).