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Product datasheet for RG226067

PEX5 (NM_001131023) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PEX5 (NM_001131023) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PEX5
Synonyms:	PBD2A; PBD2B; PTS1-BP; PTS1R; PXR1; RCDP5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

View online »

ORF Nucleotide Sequence:

>RG226067 representing NM_001131023
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCAATGCGGGAGCTGGTGGAGGCCGAATGCGGGGGTGCCAACCCGCTCATGAAGCTCGCCGGGCACT
TCACCCAGGACAAGGCCCTTCGGCAGGAGGGATTGAGGCCTGGCCCCTGGCCCCCCGGAGCCCCGGCCTC
TGAGGCAGTGAGTGTTCTTGAGGTGGAAAGCCCAGGTGCAGCCTCTGAGGCAGCCTCCAAGCCTTTGGGA
GTAGCTTCTGAAGATGAGTTGGTGGCTGAATTCCTGCAGGACCAGAATGCACCCCTTGTGTCCCGTGCCC
CTCAGACCTTCAAGATGGATGACCTCCTGGCTGAGATGCAGCAGATTGAGCAGTCAAACTTCCGCCAGGC
TCCCCAGAGAGCCCCTGGTGTGGCAGACTTGGCCTTGTCTGAGAACTGGGCCCAGGAGTTTCTTGCAGCT
GGAGATGCTGTGGATGTAACTCAGGATTATAATGAGACTGACTGGTCCCAAGAATTCATCTCTGAAGTTA
CAGACCCCTTGTCTGTGTCCCCTGCCCGCTGGGCTGAGGAATATTTGGAGCAATCAGAGGAGAAGCTGTG
GCTGGGAGAACCTGAGGGAACAGCCACCGATCGCTGGTATGATGAATATCATCCTGAGGAGGATCTGCAG
CACACGGCCAGTGACTTTGTGGCCAAAGTGGATGACCCCAAATTGGCTAATTCTGAGTTCCTGAAATTCG
TGCGGCAGATTGGCGAAGGGCAGGTGTCCCTGGAGTCCGGTGCAGGGTCGGGCCGAGCTCAGGCAGAACA
GTGGGCAGCAGAGTTTATACAGCAGCAGGGTACATCAGATGCCTGGGTTGACCAGTTCACAAGACCAGTA
AACACATCTGCCCTTGATATGGAGTTTGAACGAGCCAAGTCAGCTATAGAGTCTGATGTCGATTTCTGGG
ACAAGTTGCAGGCAGAGTTGGAGGAGATGGCAAAACGGGATGCTGAGGCCCACCCCTGGCTTTCTGACTA
TGATGACCTTACGTCAGCTACCTATGATAAGGGGTACCAGTTTGAGGAGGAGAACCCCTTGCGTGATCAC
CCTCAGCCTTTTGAAGAAGGGCTGCGGCGCCTTCAGGAGGGGGACCTGCCAAATGCTGTGCTGCTTTTTG
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GGCTGCGGTACACACCAGCCTATGCCCATCTGGTGACACCTGCTGAAGAAGGGGCTGGTGGGGCAGGACT
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CTGGCAGCTGTGCGGCTGGACCCTACCTCCATTGACCCTGATGTGCAGTGTGGCTTGGGAGTCCTTTTCA
ACCTGAGTGGGGAGTATGACAAGGCCGTGGACTGCTTCACAGCTGCCCTCAGCGTTCGTCCCAATGACTA
TTTGCTGTGGAATAAGCTAGGCGCCACCCTGGCCAATGGAAACCAGAGTGAAGAAGCAGTAGCTGCGTAC
CGCCGGGCCCTCGAGCTCCAGCCTGGCTATATCCGGTCCCGCTATAACCTGGGCATCAGCTGCATCAACC
TCGGGGCTCACCGGGAGGCTGTGGAGCACTTTCTGGAGGCCCTGAACATGCAGAGGAAAAGCCGGGGCCC
CCGGGGTGAAGGAGGTGCCATGTCGGAGAACATCTGGAGCACCCTGCGTTTGGCATTGTCTATGTTAGGC
CAGAGCGATGCCTATGGGGCAGCCGACGCGCGGGATCTGTCCACCCTCCTAACTATGTTTGGCCTGCCCC
AG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

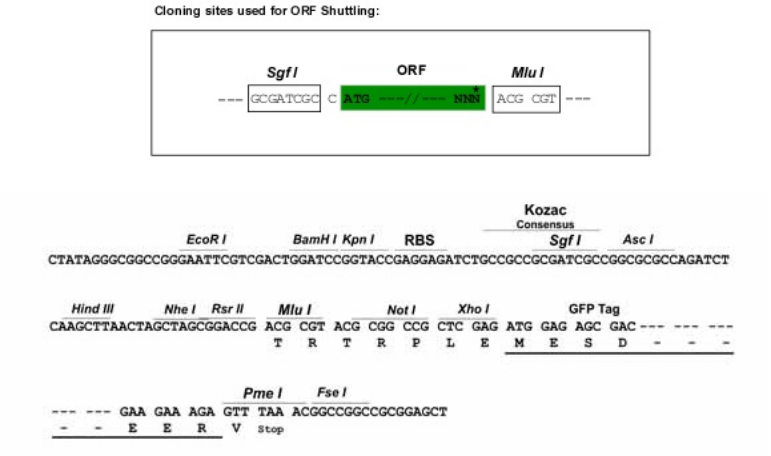
>RG226067 representing NM_001131023
Red=Cloning site Green=Tags(s)

MAMRELVEAECGGANPLMKLAGHFTQDKALRQEGLRPGPWPPGAPASEAVSVLEVESPGAASEAASKPLG
VASEDELVAEFLQDQNAPLVSRAPQTFKMDDLLAEMQQIEQSNFRQAPQRAPGVADLALSENWAQEFLAA
GDAVDVTQDYNETDWSQEFISEVTDPLSVSPARWAEEYLEQSEEKLWLGEPEGTATDRWYDEYHPEEDLQ
HTASDFVAKVDDPKLANSEFLKFVRQIGEGQVSLESGAGSGRAQAEQWAAEFIQQQGTSDAWVDQFTRPV
NTSALDMEFERAKSAIESDVDFWDKLQAELEEMAKRDAEAHPWLSDYDDLTSATYDKGYQFEEENPLRDH
PQPFEEGLRRLQEGDLPNAVLLFEAAVQQDPKHMEAWQYLGTTQAENEQELLAISALRRCLELKPDNQTA
LMALAVSFTNESLQRQACETLRDWLRYTPAYAHLVTPAEEGAGGAGLGPSKRILGSLLSDSLFLEVKELF
LAAVRLDPTSIDPDVQCGLGVLFNLSGEYDKAVDCFTAALSVRPNDYLLWNKLGATLANGNQSEEAVAAY
RRALELQPGYIRSRYNLGISCINLGAHREAVEHFLEALNMQRKSRGPRGEGGAMSENIWSTLRLALSMLG
QSDAYGAADARDLSTLLTMFGLPQ

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



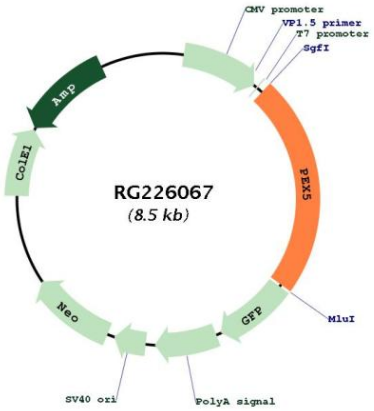
ACCN: NM_001131023

ORF Size: 1962 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_001131023.2
RefSeq Size:	3324 bp
RefSeq ORF:	1965 bp
Locus ID:	5830
UniProt ID:	P50542
Cytogenetics:	12p13.31
Protein Families:	Druggable Genome

Gene Summary: The product of this gene binds to the C-terminal PTS1-type tripeptide peroxisomal targeting signal (SKL-type) and plays an essential role in peroxisomal protein import. Peroxins (PEXs) are proteins that are essential for the assembly of functional peroxisomes. The peroxisome biogenesis disorders (PBDs) are a group of genetically heterogeneous autosomal recessive, lethal diseases characterized by multiple defects in peroxisome function. The peroxisomal biogenesis disorders are a heterogeneous group with at least 14 complementation groups and with more than 1 phenotype being observed in cases falling into particular complementation groups. Although the clinical features of PBD patients vary, cells from all PBD patients exhibit a defect in the import of one or more classes of peroxisomal matrix proteins into the organelle. Defects in this gene are a cause of neonatal adrenoleukodystrophy (NALD), a cause of Zellweger syndrome (ZWS) as well as may be a cause of infantile Refsum disease (IRD). Alternatively spliced transcript variants encoding different isoforms have been identified. [provided by RefSeq, Oct 2008]

Product images:



Circular map for RG226067