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Product datasheet for RG226051

PEX5 (NM_001131025) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PEX5 (NM_001131025) 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:

>RG226051 representing NM_001131025
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCAATGCGGGAGCTGGTGGAGGCCGAATGCGGGGGTGCCAACCCGCTCATGAAGCTCGCCGGGCACT
TCACCCAGGACAAGGCCCTTCGGCAGGAGGGATTGAGGCCTGGCCCCTGGCCCCCCGGAGCCCCGGCCTC
TGAGGCAGCCTCCAAGCCTTTGGGAGTAGCTTCTGAAGATGAGTTGGTGGCTGAATTCCTGCAGGACCAG
AATGCACCCCTTGTGTCCCGTGCCCCTCAGACCTTCAAGATGGATGACCTCCTGGCTGAGATGCAGCAGA
TTGAGCAGTCAAACTTCCGCCAGGCTCCCCAGAGAGCCCCTGGTGTGGCAGACTTGGCCTTGTCTGAGAA
CTGGGCCCAGGAGTTTCTTGCAGCTGGAGATGCTGTGGATGTAACTCAGGATTATAATGAGACTGACTGG
TCCCAAGAATTCATCTCTGAAGTTACAGACCCCTTGTCTGTGTCCCCTGCCCGCTGGGCTGAGGAATATT
TGGAGCAATCAGAGGAGAAGCTGTGGCTGGGAGAACCTGAGGGAACAGCCACCGATCGCTGGTATGATGA
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ATAGAGTCTGATGTCGATTTCTGGGACAAGTTGCAGGCAGAGTTGGAGGAGATGGCAAAACGGGATGCTG
AGGCCCACCCCTGGCTTTCTGACTATGATGACCTTACGTCAGCTACCTATGATAAGGGGTACCAGTTTGA
GGAGGAGAACCCCTTGCGTGATCACCCTCAGCCTTTTGAAGAAGGGCTGCGGCGCCTTCAGGAGGGGGAC
CTGCCAAATGCTGTGCTGCTTTTTGAGGCAGCTGTGCAGCAGGATCCTAAGCACATGGAAGCTTGGCAGT
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CAGGCCTGTGAAACCCTACGAGACTGGCTGCGGTACACACCAGCCTATGCCCATCTGGTGACACCTGCTG
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CAGTGTGGCTTGGGAGTCCTTTTCAACCTGAGTGGGGAGTATGACAAGGCCGTGGACTGCTTCACAGCTG
CCCTCAGCGTTCGTCCCAATGACTATTTGCTGTGGAATAAGCTAGGCGCCACCCTGGCCAATGGAAACCA
GAGTGAAGAAGCAGTAGCTGCGTACCGCCGGGCCCTCGAGCTCCAGCCTGGCTATATCCGGTCCCGCTAT
AACCTGGGCATCAGCTGCATCAACCTCGGGGCTCACCGGGAGGCTGTGGAGCACTTTCTGGAGGCCCTGA
ACATGCAGAGGAAAAGCCGGGGCCCCCGGGGTGAAGGAGGTGCCATGTCGGAGAACATCTGGAGCACCCT
GCGTTTGGCATTGTCTATGTTAGGCCAGAGCGATGCCTATGGGGCAGCCGACGCGCGGGATCTGTCCACC
CTCCTAACTATGTTTGGCCTGCCCCAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

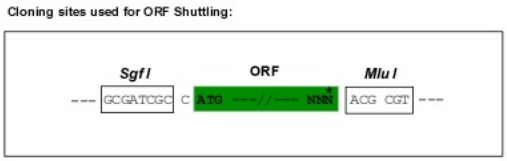
>RG226051 representing NM_001131025
Red=Cloning site Green=Tags(s)

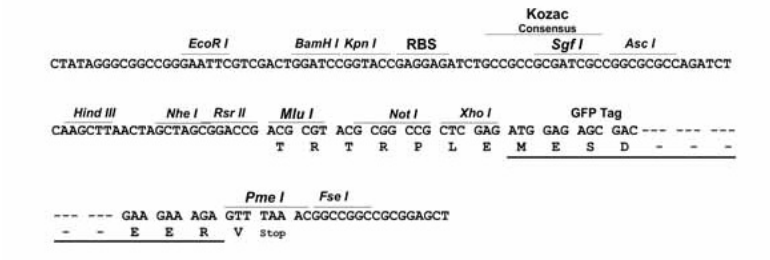
MAMRELVEAECGGANPLMKLAGHFTQDKALRQEGLRPGPWPPGAPASEAASKPLGVASEDELVAEFLQDQ
NAPLVSRAPQTFKMDDLLAEMQQIEQSNFRQAPQRAPGVADLALSENWAQEFLAAGDAVDVTQDYNETDW
SQEFISEVTDPLSVSPARWAEEYLEQSEEKLWLGEPEGTATDRWYDEYHPEEDLQHTASDFVAKVDDPKL
ANSEFLKFVRQIGEGQVSLESGAGSGRAQAEQWAAEFIQQQGTSDAWVDQFTRPVNTSALDMEFERAKSA
IESDVDFWDKLQAELEEMAKRDAEAHPWLSDYDDLTSATYDKGYQFEEENPLRDHPQPFEEGLRRLQEGD
LPNAVLLFEAAVQQDPKHMEAWQYLGTTQAENEQELLAISALRRCLELKPDNQTALMALAVSFTNESLQR
QACETLRDWLRYTPAYAHLVTPAEEGAGGAGLGPSKRILGSLLSDSLFLEVKELFLAAVRLDPTSIDPDV
QCGLGVLFNLSGEYDKAVDCFTAALSVRPNDYLLWNKLGATLANGNQSEEAVAAYRRALELQPGYIRSRY
NLGISCINLGAHREAVEHFLEALNMQRKSRGPRGEGGAMSENIWSTLRLALSMLGQSDAYGAADARDLST
LLTMFGLPQ

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:





ACCN: NM_001131025

ORF Size: 1917 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_001131025.2

RefSeq Size: 3745 bp

RefSeq ORF: 1920 bp

Locus ID: 5830

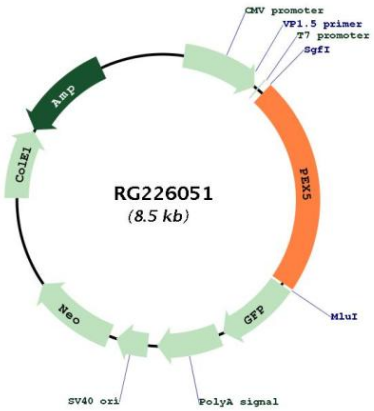
UniProt ID: P50542

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 RG226051