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Product datasheet for RC239243

PEX5 (NM_001300789) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PEX5 (NM_001300789) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PEX5
Synonyms:	PBD2A; PBD2B; PTS1-BP; PTS1R; PXR1; RCDP5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC239243 representing NM_001300789
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCTCCTCTGCCGTGCTCACCGCGTGCTGGGGCTGCGCGGGGCTAGAGAGCTGGCGGTCACCATGGCAA
TGCGGGAGCTGGTGGAGGCCGAATGCGGGGGTGCCAACCCGCTCATGAAGCTCGCCGGGCACTTCACCCA
GGACAAGGCCCTTCGGCAGGAGGGATTGAGGCCTGGCCCCTGGCCCCCCGGAGCCCCGGCCTCTGAGGCA
GCCTCCAAGCCTTTGGGAGTAGCTTCTGAAGATGAGTTGGTGGCTGAATTCCTGCAGGACCAGAATGCAC
CCCTTGTGTCCCGTGCCCCTCAGACCTTCAAGATGGATGACCTCCTGGCTGAGATGCAGCAGATTGAGCA
GTCAAACTTCCGCCAGGCTCCCCAGAGAGCCCCTGGTGTGGCAGACTTGGCCTTGTCTGAGAACTGGGCC
CAGGAGTTTCTTGCAGCTGGAGATGCTGTGGATGTAACTCAGGATTATAATGAGACTGACTGGTCCCAAG
AATTCATCTCTGAAGTTACAGACCCCTTGTCTGTGTCCCCTGCCCGCTGGGCTGAGGAATATTTGGAGCA
ATCAGAGGAGAAGCTGTGGCTGGGAGAACCTGAGGGAACAGCCACCGATCGCTGGTATGATGAATATCAT
CCTGAGGAGGATCTGCAGCACACGGCCAGTGACTTTGTGGCCAAAGTGGATGACCCCAAATTGGCTAATT
CTGAGTTCCTGAAATTCGTGCGGCAGATTGGCGAAGGGCAGGTGTCCCTGGAGTCCGGTGCAGGGTCGGG
CCGAGCTCAGGCAGAACAGTGGGCAGCAGAGTTTATACAGCAGCAGGGTACATCAGATGCCTGGGTTGAC
CAGTTCACAAGACCAGTAAACACATCTGCCCTTGATATGGAGTTTGAACGAGCCAAGTCAGCTATAGAGT
CTGATGTCGATTTCTGGGACAAGTTGCAGGCAGAGTTGGAGGAGATGGCAAAACGGGATGCTGAGGCCCA
CCCCTGGCTTTCTGACTATGATGACCTTACGTCAGCTACCTATGATAAGGGGTACCAGTTTGAGGAGGAG
AACCCCTTGCGTGATCACCCTCAGCCTTTTGAAGAAGGGCTGCGGCGCCTTCAGGAGGGGGACCTGCCAA
ATGCTGTGCTGCTTTTTGAGGCAGCTGTGCAGCAGGATCCTAAGCACATGGAAGCTTGGCAGTATCTGGG
TACCACCCAGGCAGAGAATGAACAAGAACTATTAGCCATCAGTGCATTGCGGAGGTGTCTGGAGCTAAAG
CCAGATAACCAGACAGCACTGATGGCGCTGGCTGTGAGCTTCACCAACGAGTCCCTGCAGCGACAGGCCT
GTGAAACCCTACGAGACTGGCTGCGGTACACACCAGCCTATGCCCATCTGGTGACACCTGCTGAAGAAGG
GGCTGGTGGGGCAGGACTGGGCCCCAGCAAGCGTATCCTGGGATCTCTCTTGTCTGACTCCCTGTTTCTT
GAAGTGAAAGAGCTCTTCCTGGCAGCTGTGCGGCTGGACCCTACCTCCATTGACCCTGATGTGCAGTGTG
GCTTGGGAGTCCTTTTCAACCTGAGTGGGGAGTATGACAAGGCCGTGGACTGCTTCACAGCTGCCCTCAG
CGTTCGTCCCAATGACTATTTGCTGTGGAATAAGCTAGGCGCCACCCTGGCCAATGGAAACCAGAGTGAA
GAAGCAGTAGCTGCGTACCGCCGGGCCCTCGAGCTCCAGCCTGGCTATATCCGGTCCCGCTATAACCTGG
GCATCAGCTGCATCAACCTCGGGGCTCACCGGGAGGCTGTGGAGCACTTTCTGGAGGCCCTGAACATGCA
GAGGAAAAGCCGGGGCCCCCGGGGTGAAGGAGGTGCCATGTCGGAGAACATCTGGAGCACCCTGCGTTTG
GCATTGTCTATGTTAGGCCAGAGCGATGCCTATGGGGCAGCCGACGCGCGGGATCTGTCCACCCTCCTAA
CTATGTTTGGCCTGCCCCAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

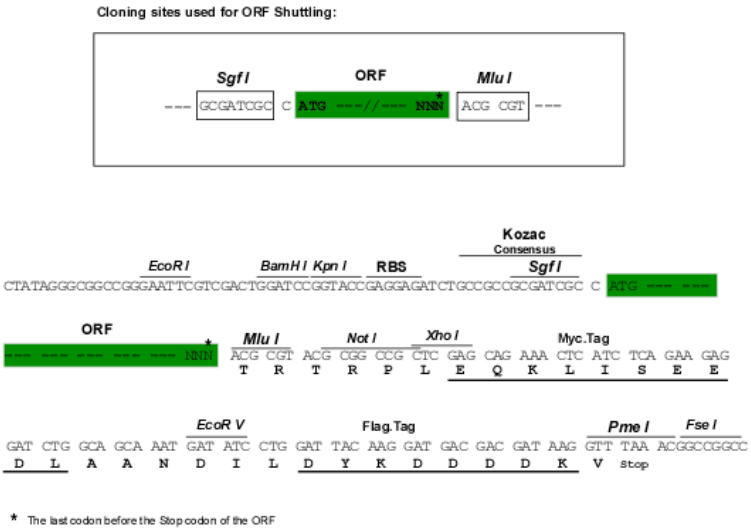
>RC239243 representing NM_001300789
Red=Cloning site Green=Tags(s)

MLLCRAHRVLGLRGARELAVTMAMRELVEAECGGANPLMKLAGHFTQDKALRQEGLRPGPWPPGAPASEA
ASKPLGVASEDELVAEFLQDQNAPLVSRAPQTFKMDDLLAEMQQIEQSNFRQAPQRAPGVADLALSENWA
QEFLAAGDAVDVTQDYNETDWSQEFISEVTDPLSVSPARWAEEYLEQSEEKLWLGEPEGTATDRWYDEYH
PEEDLQHTASDFVAKVDDPKLANSEFLKFVRQIGEGQVSLESGAGSGRAQAEQWAAEFIQQQGTSDAWVD
QFTRPVNTSALDMEFERAKSAIESDVDFWDKLQAELEEMAKRDAEAHPWLSDYDDLTSATYDKGYQFEEE
NPLRDHPQPFEEGLRRLQEGDLPNAVLLFEAAVQQDPKHMEAWQYLGTTQAENEQELLAISALRRCLELK
PDNQTALMALAVSFTNESLQRQACETLRDWLRYTPAYAHLVTPAEEGAGGAGLGPSKRILGSLLSDSLFL
EVKELFLAAVRLDPTSIDPDVQCGLGVLFNLSGEYDKAVDCFTAALSVRPNDYLLWNKLGATLANGNQSE
EAVAAYRRALELQPGYIRSRYNLGISCINLGAHREAVEHFLEALNMQRKSRGPRGEGGAMSENIWSTLRL
ALSMLGQSDAYGAADARDLSTLLTMFGLPQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001300789

ORF Size: 1980 bp

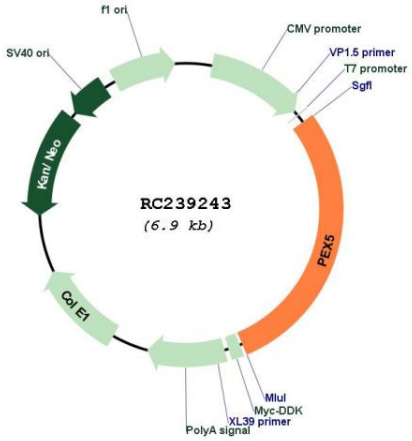
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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_001300789.1, NP_001287718.1
RefSeq Size:	3350 bp
RefSeq ORF:	1920 bp
Locus ID:	5830
UniProt ID:	P50542
Cytogenetics:	12p13.31
Protein Families:	Druggable Genome
MW:	73.6 kDa
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 RC239243