

Product datasheet for **RC217028**

PIGW (NM_178517) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PIGW (NM_178517) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PIGW
Synonyms:	Gwt1; HPMRS5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC217028 ORF sequence, **codon optimized**.
Due to the complexity of NM_178517, the ORF clone is codon optimized for mammalian Expression.
The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGTCTGAAAAGCAGATGAAGGAAGCTTTTGTCTAGTAACCTCAATGGAACCACCGTCTGGAAATCACCC
 AGGGATTGTGCTTTCCTGCATTCTGTATCCTGTGCAGAGGGTTCCTGATCATTTTCTCACAGTACTGTG
 TTCTTTTTACCTACCTGAAAAGTATTCTCACTGACTTTGTGTCCTAATAGTTCCCATGGTAGCC
 ACTTTGACCATTGGGCTTCATTTATCCTCCTGAGCTTCTCGGTGAATTATCTTTGGGGCAGGGCTGT
 TGTATCAAATATACCGAAGGAGGACCTGCTATGCCAGACTGCCTTTCCTAAAAATCCTTGAAAAATCTT
 GAACATCAGTCTAGAATCAGAATACAATCCAGCCATCTCCTGTTCCCGTGAATTACCAAGTGCCTTACT
 GCTATTGCTATTTGGCTGTGGACTTCCCACTTTTCCAGAAGATTTGCCAAAAGTACTGAGCTCTATGGGA
 CAGGAGCAATGGATTTGGAGTAGTGGCTTTGTTTTGGGTCTGCAATGGTTTGTCTAGAGGTCAGGAG
 GAGAAAATATATGGAAGGGTCCAATTCGACTTTTACAACACTCATTGTACTCTGTTGGCCATTAGTC
 TTCCTAGGAATCGGACGATTAGCCATTAAAAATCAATAGGCTATCAGGAACATTTAACAGAGTATGGAG
 TTCCTGGAACTTTTCTTTACCATAATAGTTGTGAAATGATAACACCCTGCTGTTGATTATTTTTCC
 CCTAAATAAGTCTGGATTATTGCCCTCGGCATTACTGTATTATACCAGCTAGCCCTTGACTTTACCTCA
 CTGAAGAGGTTAATATTATATGGCACTGATGGTAGTGGCACACGGGTGGTCTATTAAATGCCAACCGCG
 AAGGAATAATCTCTACCCTGGGGTATGTGGCAATACACATGGCTGGTGTGCAAACAGGGTTATATATGCA
 TAAGAACCATCACATATCAAAGACTTGATAAAAAGTAGCCTGTTTTCTTTACTGGCAGCTATTAGCCTC
 TTCATATCTTTACGTAGTTCAAGTAAATGTAGAAGCAGTATCTCGAAGAATGGCAAATTTAGCCTTTT
 GTATTTGGATAGTTGCTTCTAGCCTGATCCTTCTTAGTAGTTTATTACTGGGTGATATAATTTGAGTTT
 TGCCAAATTTCTAATTAAGGAGCTCTAGTACCATGTTCTTGAAACTTATCCAGTCACCTGTTACAAT
 AAAAAGCATTGAGTCTCTAGTCCCTGAAGCCGAAAGAATGGAACCCAGTCTTTGTTAATCACAGCTC
 TAAACAGAAAACAGTAAATTTTTCTTGCTGTCAAATATAACAACCTGGCCTGATCAACCTGATGGTAGA
 TACATTACACAGCAGTACCTTGTGGCCTTATTGTGGTCAATCTCTATATGTTTTCCAACCTGTTAATT
 GTATATGTAATATTTGCAAGATAAGACTGTACAATTTGG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC217028 representing NM_178517
 Red=Cloning site Green=Tags(s)

MSEKQMKAEFVSNLNGTTVLEITQGLCFPAFCILCRGFLIIFSQYLCSFSPTWKTRFLTDFVVLIVPMVA
 TLTIWASFILLELLGVIIIFGAGLLYQIYRRRTCYARLPFLKILEKFLNISLESEYNPAISCFRVITSFT
 AIAILAVDFPLFPRRFAKTEL YGTGAMDFGVGGFVFGSAMVCLVRRRKYMEGSKLHYFTNSLYSVWPLV
 FLGIGRLAIIKISIGYQEHLETEYVHWNFFFTIIVVKLITPLLLIIFPLNKSIIALGITVLYQLALDFTS
 LKRLILYGTGSGTRVGLLNANREGIISTLGYVAIHMAGVQTGLYMHKNRSHIKDLIKVACFLLLAAISL
 FISLYVVQVNVEAVSRMANLAFCIWIVASSLILLSLLLDGDIILSF AKFLIKGALVPCSWKLIQSPVTN
 KKHSESLVPEAERMEPSLCLITALNRKQLIFFLLSNITGLINLMVDTLHSSTLWALFVNVLYMFSNCLI
 VVYLYLQDKTVQFW

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

ACCN: NM_178517

ORF Size: 1512 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.

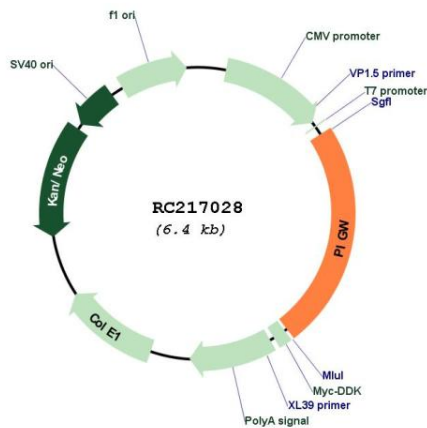
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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_178517.4](#)

RefSeq Size:	3050 bp
RefSeq ORF:	1515 bp
Locus ID:	284098
UniProt ID:	Q7Z7B1
Cytogenetics:	17q12
Protein Families:	Transmembrane
Protein Pathways:	Glycosylphosphatidylinositol(GPI)-anchor biosynthesis, Metabolic pathways
MW:	56.9 kDa
Gene Summary:	The protein encoded by this gene is an inositol acyltransferase that acylates the inositol ring of phosphatidylinositol. This occurs in the endoplasmic reticulum and is a step in the biosynthesis of glycosylphosphatidylinositol (GPI), which anchors many cell surface proteins to the membrane. Defects in this gene are a cause of the age-dependent epileptic encephalopathy West syndrome as well as a syndrome exhibiting hyperphosphatasia and cognitive disability (HPMRS5). [provided by RefSeq, Jul 2017]

Product images:



Circular map for RC217028