

## Product datasheet for **RG214528**

### **PIGA (NM\_002641) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PIGA (NM_002641) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PIGA
Synonyms:	GPI3; MCAHS2; PIG-A; PNH1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG214528 representing NM\_002641  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGCCTGTAGAGGAGGAGCTGGGAATGGCCACCGTGCCTCAGCTACACTCTCTCGGGTTAGCCCTGGAA  
 GTCTTTACACATGTAGAACCCGTACCCATAATATATGCATGGTATCTGACTTTTTCTACCCAAATATGGG  
 AGGCGTGGAAAGCCACATTTACCAGCTCTCTCAGTGCCTGATTGAAAGAGGGCATAAGGTTATAATTGTC  
 ACCCATGCTTATGGAAATCGAAAAGGCATCCGTTACCTCACCAGTGGCCTCAAAGTCTATTACTTGCCTC  
 TGAAAGTCATGTACAACCACTACAGCCACGACCCTCTTTCACAGTCTGCCATTGCTCAGGTACATATT  
 TGTTCCGGGAGAGAGTACGATAATCCATTCACATAGTTCTTTTTCTGCTATGGCCATGATGCTCTCTTC  
 CACGCCAAGACAATGGGGCTTCAGACAGTCTTCACGGACCATTCCCTTTTTGGATTTGCTGATGTCAGCT  
 CGGTGCTTACAAACAAGCTTCTAACCGTGTCTTTGTGATACAAACCACATCATTTGTGTGCTTATAC  
 TAGTAAGGAAAATACTGTACTAAGAGCAGCACTGAATCCTGAAATAGTGTCCGTCATTCTAATGCTGTA  
 GATCCTACTGACTTCACTCCAGACCCATTTAGAAGGCATGATAGTATAACTATTGTTGTTGTCAGCAGAC  
 TTGTTTACAGAAAAGGGATCGATTTGCTTAGTGGTATAATACCTGAACTCTGTCAGAAAATATCCAGATTT  
 AAATTTTATAATTGGAGGAGAGGGACCAAAGAGAATCATTTTGGAAAGAAGTTCGGGAAAGATACCAGCTG  
 CATGACAGGGTGCCTTTTTGGGAGCTTTAGAACAAGGATGTTAGAAATGTCTTAGTTCAAGGACATA  
 TTTTTCTGAATACCTCCCTTACTGAAGCATTCTGCATGGCGATCGTGAAGCAGCCAGTTGTGGTTTACA  
 GGTTGTAAGTACCAGAGTTGGTGAATTCCTGAGGTGCTCCAGAAAACCTTATTATTTTATGTGAGCCT  
 TCAGTAAAATCTTTGTGTAAGGATTGGAAAAGGCTATTTCCAACCTGAAGTCAGGGACATTGCCAGCTC  
 CAGAAAACATCCATAACATAGTAAAGACTTTCTACACCTGGAGGAATGTTGCAGAAAAGAACTGAAAAGGT  
 ATATGACCGGGTATCAGTGGAAAGCTGTGTTGCCAATGGACAAACGACTGGACAGACTTATTCTCACTGC  
 GGCCAGTAACAGGCTACATCTTTGCTTTGTTGGCAGTTTTCAACTTCTCTCTCATTCTTTCTTGAGAT  
 GGATGACTCCAGATTCTATCATTGATGTTGCAATAGATGCCACTGGGCCACGGGGTGCCTGGACTAATAA  
 CTATTCTCACAGTAAAAGAGGGGTGAGAATAATGAGATATCTGAAACCAGG

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG214528 representing NM\_002641  
 Red=Cloning site Green=Tags(s)

MACRGGAGNGHRASATLSRVSPGSLYTCRTRTHNICMVSDFFYPNMGGVESHYQLSQCLIERGHKVIIV  
 THAYGNRKGIRYLTSGLKVYYLPLKVMYNQSTATTLFHSLPLLRIFVRRERTIIHSHSSFSAMAHDALF  
 HAKTMGLQTVFTDHSLFGFADVSSVLTKLLTVSLCDTNHIIICVSYTSKENTVLRALNPEIVSVIPNAV  
 DPTDFTPDFRRHDSITIVVVSRLVYRKGIDLLSGIPELCQKYPDLNFIIGGEGPKRIILEEVERERYQL  
 HDRVRLLGALEHKDVRNVLVQGHIFLNTSLTEAFCMAIVEAASCLQVVSTRVGGIPEVLPENLIIILCEP  
 SVKSLCEGLEKAIIFQLKSGTLPAPENIHNIKTFYTWNRVAERTEKVYDRVSVEAVLPMDKRLDRLIISHC  
 GPVTGYIFALLAVFNFLFLIFLRWMPDSIIDVAIDATGPRGAWTNNYSHSKRGENNEISETR

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_002641

**ORF Size:** 1452 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\\_002641.4](#)

**RefSeq Size:** 3589 bp

**RefSeq ORF:** 1455 bp

**Locus ID:** 5277

**UniProt ID:** [P37287](#)

**Cytogenetics:** Xp22.2

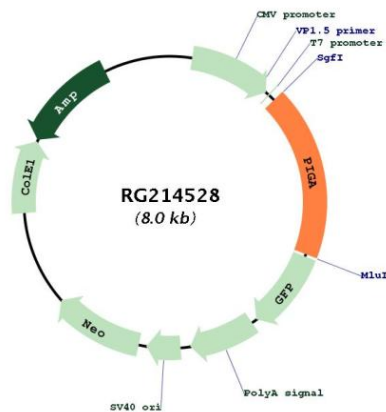
**Domains:** Glycos\_transf\_1

**Protein Families:** Transmembrane

**Protein Pathways:** Glycosylphosphatidylinositol(GPI)-anchor biosynthesis, Metabolic pathways

**Gene Summary:** This gene encodes a protein required for synthesis of N-acetylglucosaminyl phosphatidylinositol (GlcNAc-PI), the first intermediate in the biosynthetic pathway of GPI anchor. The GPI anchor is a glycolipid found on many blood cells and which serves to anchor proteins to the cell surface. Paroxysmal nocturnal hemoglobinuria, an acquired hematologic disorder, has been shown to result from mutations in this gene. Alternate splice variants have been characterized. A related pseudogene is located on chromosome 12. [provided by RefSeq, Jun 2010]

**Product images:**



Circular map for RG214528