

## Product datasheet for **RG232461**

### **PITX2 (NM\_001204398) Human Tagged ORF Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PITX2 (NM_001204398) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PITX2
Synonyms:	ARP1; ASGD4; Brx1; IDG2; IGDS; IGDS2; IHG2; IRID2; Otlx2; PTX2; RGS; RIEG; RIEG1; RS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG232461 representing NM_001204398 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGACCAACTGCCGCAAAGTGGTGTGGCGTGTGTGCAATTAGGCGTGCAGCCGGCGCCGTTGAAT  
GTCTCTTCTCAAAGACTCCGAAATCAAAAAGGTCGAGTTCACGGACTCTCCTGAGAGCCGAAAAGAGGC  
AGCCAGCAGCAAGTTCTCCCGCGGCAGCATCCTGGCGCAATGAGAAAGATAAAAGCCAGCAGGGGAAG  
AATGAGGACGTGGGCGCCGAGGACCCGTCTAAGAAGAAGCGCAAAGCGGCAGCGGACTCACTTACCA  
GCCAGCAGCTCCAGGAGCTGGAGGCCACTTCCAGAGGAACCGCTACCCGGACATGTCCACACGCGAAGA  
AATCGCTGTGTGGACCAACCTTACGGAAGCCCGAGTCCGGGTTTGGTTCAAGAATCGTCGGGCCAAATGG  
AGAAAGAGGGAGCGCAACCAGCAGGCCGAGCTATGCAAGAATGGCTTCGGGCCGAGTTCAATGGGCTCA  
TGCAGCCCTACGACGACATGTACCCAGGCTATTCTACAACAAGTGGGCCGCAAGGGCCTTACATCCGC  
CTCCCTATCCACCAAGAGCTTCCCTTCTCAACTCTATGAACGTCAACCCCTGTATCACAGAGCATG  
TTTTCCCACCAACTCTATCTCGTCCATGAGCATGTCGTCAGCATGGTGCCCTCAGCAGTGACAGGCG  
TCCCGGCTCCAGTCTCAACAGCCTGAATAACTGAACAACCTGAGTAGCCCGTCCGCTGAATTCGCGGT  
GCCGACGCTGCCTGTCTTACGCGCCGCGACTCCTCCGATGTTTATAGGGACAGGTGAACCTCGAGC  
CTGGCCAGCCTGAGACTGAAAGCAAAGCAGCACTCCAGTTCGGCTACGCCAGCGTGCAGAACCCGGCCT  
CAAACCTGAGTGCTTGCCAGTATGCAGTGGACCGCCCGT

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG232461 representing NM\_001204398  
 Red=Cloning site Green=Tags(s)

METNCRKLVSA CVLGVQPAAVECLFSKDSEIKKVEFTDSPE SRKEAASSKFFPRQHPGANEKDKSQQGK  
 NEDVGAEDPSKKKRQRRTHTFSQQLQELEATFQRNRY PDMSTREEIAVWNTL TEARVRVWFKNRRAKW  
 RKRERNQQAELCKNGFGPQFNGLMQPYDDMYPGYSYNNWAAKGLT SASLSTKSFPPFFNSMNVNPLSSQSM  
 FSPPNISISSMSMSSMVP SAVTGVPGSSLNLSLNNLSSPSLNSAVPTPACPYAPPTPPYVYRDT CNSS  
 LASLRLKAKQHSSFGYASVQNPASNLSACQYAVDRPV

TRTRPLE - GFP Tag - V

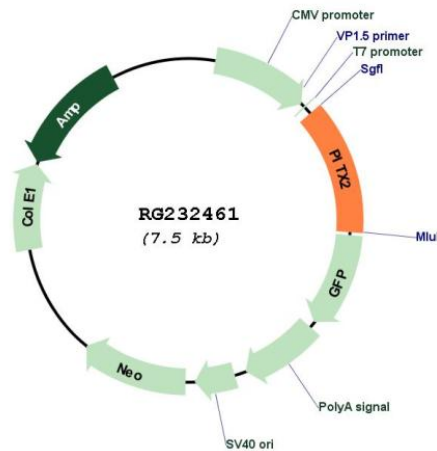
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**Plasmid Map:**



**ACCN:** NM\_001204398

**ORF Size:** 951 bp

<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_001204398.1</a> , <a href="#">NP_001191327.1</a>
<b>RefSeq Size:</b>	1874 bp
<b>RefSeq ORF:</b>	954 bp
<b>Locus ID:</b>	5308
<b>UniProt ID:</b>	<a href="#">Q99697</a>
<b>Cytogenetics:</b>	4q25
<b>Protein Families:</b>	Transcription Factors
<b>Protein Pathways:</b>	TGF-beta signaling pathway
<b>Gene Summary:</b>	This gene encodes a member of the RIEG/PITX homeobox family, which is in the bicoid class of homeodomain proteins. The encoded protein acts as a transcription factor and regulates procollagen lysyl hydroxylase gene expression. This protein plays a role in the terminal differentiation of somatotroph and lactotroph cell phenotypes, is involved in the development of the eye, tooth and abdominal organs, and acts as a transcriptional regulator involved in basal and hormone-regulated activity of prolactin. Mutations in this gene are associated with Axenfeld-Rieger syndrome, iridogoniodysgenesis syndrome, and sporadic cases of Peters anomaly. A similar protein in other vertebrates is involved in the determination of left-right asymmetry during development. Alternatively spliced transcript variants encoding distinct isoforms have been described. [provided by RefSeq, Jul 2008]