

Product datasheet for **RG213218**

PITX2 (NM_153426) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PITX2 (NM_153426) 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:	>RG213218 representing NM_153426 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGACCAACTGCCGAACTGGTGTGCGCGTGTGTGCAATTAGGCGTGCAGCCGGCGCGTGAAT
GTCTCTTCTCAAAGACTCCGAAATCAAAAAGGTCGAGTTCACGGACTCTCCTGAGAGCCGAAAAGAGGC
AGCCAGCAGCAAGTTCTCCCGCGCAGCATCCTGGCGCAATGAGAAAGATAAAAGCCAGCAGGGGAAG
AATGAGGACGTGGGCGCCGAGGACCCGTCTAAGAAGAAGCGGCAAGGCGCAGCGGACTCACTTACCA
GCCAGCAGCTCCAGGAGCTGGAGGCCACTTCCAGAGGAACCGCTACCCGGACATGTCCACACGCGAAGA
AATCGCTGTGTGGACCAACCTTACGGAAGCCCGAGTCCGGGTTTGGTTCAAGAATCGTCGGCCAAATGG
AGAAAGAGGGAGCGCAACCAGCAGGCCGAGCTATGCAAGAATGGCTTCGGGCCGAGTTCAATGGGCTCA
TGCAGCCCTACGACGACATGTACCCAGGCTATTCTACAACAACCTGGGCCGCAAGGGCCTTACATCCGC
CTCCCTATCCACCAAGAGCTTCCCTTCTCAACTCTATGAACGTCAACCCCTGTATCACAGAGCATG
TTTTCCCACCAACTCTATCTCGTCCATGAGCATGTCGTCAGCATGGTGCCCTCAGCAGTGACAGGCG
TCCCGGCTCCAGTCTCAACAGCCTGAATAACTGAACAACCTGAGTAGCCCGTCGCTGAATTCGCGGT
GCCGACGCTGCCTGTCTTACGCGCCGCGACTCCTCCGTATGTTTATAGGGACAGGTGAACCTCGAGC
CTGGCCAGCCTGAGACTGAAAGCAAAGCAGCACTCCAGCTTCGGCTACGCCAGCGTGCAGAACCCGGCCT
CAAACCTGAGTGCTTGCCAGTATGCAGTGGACCCGCCCCGTG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG213218 representing NM_153426
 Red=Cloning site Green=Tags(s)

```
METNCRKLVSA CVQLGVQPAAVECLFSKDSEIKKVEFTDSPE SRKEAASSKFFPRQHPGANEKDKSQQGK
NEDVGAEDPSK KKRQRRTHTFSQQLQELEATFQRNRY PDMSTREEIAVVTNL TEARVRVWFKNRRAKW
RKRE RNQQAELCKNGFGPQFNGLMQPYDDMYPGYSYNNWAAKGLT SASLSTKSF PPFNSMNVNPLSSQSM
FSP P NSISSMSMSSMVP SAVTGVP GSSLNSLNNL NLS SPSLNSAVPTPACPYAPPTPPYVYRDT CNSS
LASLRLKAKQHSSFGYASVQNPASNLSACQYAVDRPV
```

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



ACCN: NM_153426

ORF Size: 951 bp

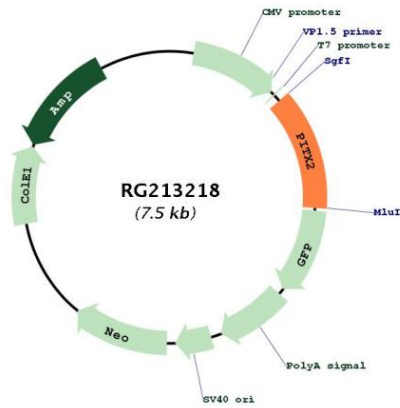
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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:	<ol style="list-style-type: none">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_153426.2
RefSeq Size:	2250 bp
RefSeq ORF:	954 bp
Locus ID:	5308
UniProt ID:	Q99697
Cytogenetics:	4q25
Protein Families:	Transcription Factors
Protein Pathways:	TGF-beta signaling pathway
Gene Summary:	<p>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]</p>

Product images:



Circular map for RG213218