

## Product datasheet for **SC321159**

### **PITX2 (NM\_000325) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PITX2 (NM_000325) Human Untagged Clone
Tag:	Tag Free
Symbol:	PITX2
Synonyms:	ARP1; ASGD4; Brx1; IDG2; IGDS; IGDS2; IHG2; IRID2; Otlx2; PTX2; RGS; RIEG; RIEG1; RS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:**

```
>OriGene sequence for NM_000325.4
GTTAGGCCAACAGGGAAGCGCGGAGCCGACAGATCTGGTCCGTCGCTCGCCTGGGTGCCTG
GAGCTGAGCTGCGGCAAGGCCCGGCTCCTGTTTCGACCGCCGAGGGGTGTGCGTGTGCGC
GTTGCGGAGGGTGCCTCAGAGGGCCGCGTCTGGCTGCAGCGGCTGCTGCCGCCGACAGG
GGATCTAATATCACCTACCTGTCCCTGTCACTTTGACACTTCTGTGACAGGCTGCCGC
GTGGGGGGGGGGCGGGCAGAGCGGGTTCGGCGTTAGCTTTTCCTTATTGGAGGGTTCCTGG
GGGAGGGAGGGAGAGAAGAAGGGGGTCTTTGCCACTCTGTTTTCGCTTTGGAGCTTGGAA
AGCTGTCTCCCTAAAGACGCTCTGAGTGGTGCCTTCTGCCACATCCCATGTCTTCGTT
TGCCCGCTGACTTTCCGCTCTCCGACTTTTTTCGCTTGGAGCCTTCCGGAGGAGACGGGGC
AGCTTGGCTTGAAGAACTCGGCGGGGTTGCGTCCCTGGCTCTCCCGCAGCGGGGAAAC
TCCGCGCTAGAGCGGACCCGGAGCGGGCAGCGCGGCTACGGGGGCTCGGCGGGGACAG
TAGCCAAGGACTAGTAGAGCGTCCGCTCCCTCGTCCATGAAGTGCATGAAAGGCCCGCT
TCACTTGGAGCACCGAGCAGCGGGACCAAGCTGTGGCCGCTCCTCATCTTCTGTCA
CCATCCCAGCCGTTAGCCATGGCTTCGGTTCTGGCTCCCGGTACGCCCCGGTGCCTGGA
CTCTCCAAGCACAGGCTGGAGGTGCACACCATCTCCGACACTCCAGCCCGAGGCCGC
AGAGAAAGATAAAAGCCAGCAGGGAAGAATGAGGACGTGGGCGCCGAGGACCCGTCAA
GAAGAAGCGGCAAGGGCGCAGCGGACTCACTTACCAGCCAGCAGCTCCAGGAGCTGGA
GGCCACTTTCAGAGGAACCGCTACCCGGACATGTCCACACGCGAAGAAATCGTGTGTG
GACCAACCTTACGGAAGCCCGAGTCCGGGTTTGGTTCAAGAAATCGTCGGGCCAAATGGAG
AAAGAGGGAGCGCAACCAGCAGGCGGAGCTATGCAAGAAATGGCTTCGGGCCGAGTTCAA
TGGGCTCATGCAGCCCTACGACGACATGTACCCAGGCTATTCTACAACAACCTGGGCCG
CAAGGGCCTTACATCCGCTCCCTATCCACCAAGAGCTTCCCCTTCTTCAACTCTATGAA
CGTCAACCCCTGTCAACAGAGCATGTTTTCCCACCAACTATCTCGTCCATGAG
CATGTCTCCAGCATGGTGCCTCAGCAGTGACAGGCGTCCCGGGCTCCAGTCTCAACAG
CCTGAATAACTTGAACAACCTGAGTAGCCCGTGCCTGAATTCCGCGGTGCCGACGCTGC
CTGTCTTACGCGCCCGGACTCCTCCGTATGTTTATAGGGACACGTGTAAGTCCGAGCCT
GGCCAGCCTGAGACTGAAAGCAAAGCAGCACTCCAGCTTCGGCTACGCCAGCGTGAGAA
CCCGGCTCCAACCTGAGTGTGCTGCCAGTATGCAGTGGACCGGCCGTGTGAGCCGAC
CACAGCGCCGGATCCTAGGACCTTCCCGATGGGGCAACTCCGCCCTTGAAGACTGGG
AATTATGTAGAAAGTCTGGGCACTAAAGAAAGGAGAGAAAGAGAAGTATATAGAGA
AAAGAAACCCTGAATCAAAGAGAGAGCTCCTTTGATTTCAAAGGATGTCCTCAGTGT
CTGACATCTTCTACTACAAGTATTTCTAACAGTTGCAAGGACACATACACAAACAATGT
TTGACTGGATATGACATTTTAACATACTATAAGCTTGTATTTTTTAAGTTTAGCATTG
TTAACATTTAAATGACTGAAAGGATGTATATATCGAAATGTCAAATTAATTTTATAAA
AGCAGTTGTTAGTAAATACACAAGTGTTTTTAAAGTTAGGCTTTAAATAAAGCATG
TTATACAGAAGCGATTAGGATTTTTCGCTTGCAGCAAGGAGTGTATATACTAAATGCC
ACACTGTATGTTTCAACATATTATTATTATAAAAAATGTGTGAATATCAGTTTTAG
AATAGTTTCTCTGGTGGATGCAATGATGTTTCTGAAACTGCTATGTACAACCTACCCTGT
GTATAACATTTCTGTAACAATATTATTGTTTTACTTTTCAGCAAATATGAAACAAATGTGT
TTATTTTCATGGAGTAAAATATACTGCATACAAAAAAAAAAAAAAAAAAAAAAAAAAAA
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**Restriction Sites:**

Please inquire

**ACCN:**

NM\_000325

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<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_000325.4</a> , <a href="#">NP_000316.2</a>
<b>RefSeq Size:</b>	2336 bp
<b>RefSeq ORF:</b>	975 bp
<b>Locus ID:</b>	5308
<b>UniProt ID:</b>	<a href="#">Q99697</a>
<b>Cytogenetics:</b>	4q25
<b>Domains:</b>	homeobox, OAR
<b>Protein Families:</b>	Transcription Factors
<b>Protein Pathways:</b>	TGF-beta signaling pathway
<b>Gene Summary:</b>	<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> <p>Transcript Variant: This variant (3), also known as ARP1c, lacks several exons at the 5' end and has an alternate 5' exon, as compared to variant 2. The resulting isoform (c) has a longer and distinct N-terminus, as compared to isoform b.</p>