

Product datasheet for **RC232461**

PITX2 (NM_001204398) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PITX2 (NM_001204398) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PITX2
Synonyms:	ARP1; ASGD4; Brx1; IDG2; IGDS; IGDS2; IHG2; IRID2; Otlx2; PTX2; RGS; RIEG; RIEG1; RS
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC232461 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

RCATGGAGACCAACTGCCCAAAGTGGTGTGGCGTGTGTGCAATTAGGCGTGCAGCCGGCGCCGTTGA
ATGTCTTCTCCAAAGACTCCGAAATCAAAAAGGTCGAGTTCACGACTCTCCTGAGAGCCGAAAAGAG
GCAGCCAGCAGCAAGTCTTCCCGCGGCAGCATCTGGCGCAATGAGAAAGATAAAAGCCAGCAGGGGA
AGAATGAGGACGTGGCGCCGAGGACCCGTCTAAGAAGAAGCGGCAAAGCGGCAGCGGACTCACTTTAC
CAGCCAGCAGCTCCAGGAGCTGGAGGCCACTTTCCAGAGGAACCGCTACCCGACATGTCCACACGCGAA
GAAATCGCTGTGTGGACCAACCTTACGGAAGCCCGAGTCCGGGTTTGGTTCAAGAATCGTCGGGCCAAAT
GGAGAAAGAGGGAGCGCAACCAGCAGGCCGAGCTATGCAAGAATGGCTTCGGGCCGAGTTCAATGGGCT
CATGCAGCCCTACGACGACATGTACCCAGGCTATTCTACAACAAGTGGGCCGCAAGGGCCTTACATCC
GCCTCCCTATCCACCAAGAGCTTCCCCTTCTTCAACTCTATGAACGTCAACCCCTGTATCACAGAGCA
TGTTTTCCCACCAACTCTATCTCGTCCATGAGCATGTCGTCCAGCATGGTGCCTCAGCAGTGACAGG
CGTCCCGGGCTCCAGTCTCAACAGCCTGAATAACTGAACAACCTGAGTAGCCCGTCGTAATTCGCG
GTGCCGACGCTGCCTGTCTTACGCGCCGCGGACTCCTCCGTATGTTTATAGGGACACGTGTAACTCGA
GCCTGGCCAGCCTGAGACTGAAAGCAAAGCAGCACTCCAGCTTCGGCTACGCCAGCGTGCAGAACCCGGC
CTCCAACCTGAGTGCTTGCCAGTATGCAGTGGACCGGCCCGTG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC232461 protein sequence
Red=Cloning site Green=Tags(s)

XWRPTAANWCRRVCN*ACSRRLNVSSPKTPKSKRSSRTLLRAEKRQPAASSSRGSILAPMRKIKASRG
 RMRTWAPRTRLRRSGKGGGSLTLPASSRSWRPLSRGTATRTCPHAKKSLCGPTLRKPESGFGSRIVGN
 GERGSATSRPSYARMASGRSSMGSCSPTTCTQAIPTTTGPPRALHPPYPYPRASPSSTL*TSTPCHHRA
 CFPHTLSRP*ACRPAWCPQQ*QASRAPVSTA*IT*TT*VARR*IPRCRRLPVLTRRRLLRMFIGTRVTR
 AWPA*D*KQSSTPASATPACRTRPPT*VLASMQWTGP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mg2787_c05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001204398

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:

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_001204398.1](#), [NP_001191327.1](#)

RefSeq Size: 1874 bp

RefSeq ORF: 954 bp

Locus ID: 5308

UniProt ID: [Q99697](#)

Cytogenetics: 4q25

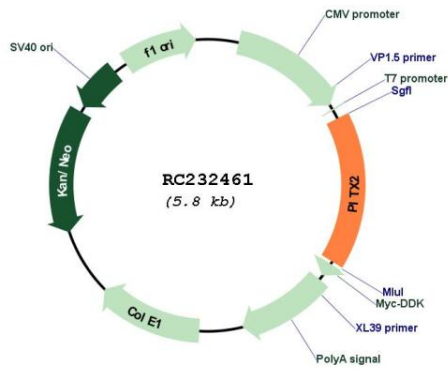
Protein Families: Transcription Factors

Protein Pathways: TGF-beta signaling pathway

MW: 35.4 kDa

Gene Summary: 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]

Product images:



Circular map for RC232461