

## Product datasheet for **SC323357**

### **PIM1 (NM\_002648) Human Untagged Clone**

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PIM1 (NM_002648) Human Untagged Clone
Tag:	Tag Free
Symbol:	PIM1
Synonyms:	PIM
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC323357 sequence for NM_002648 edited (data generated by NextGen Sequencing)

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ATGCTCTTGTC AAAATCAACTCGCTTGCCACCTGCGCGCCGCGCCCTGCAACGACCTG
CAGCCACCAAGCTGGCGCCCGCAAGGAGAAGGAGCCCTGGAGTCGCAGTACCAGGTG
GGCCCGTACTGGGCAGCGCGGCTTCGGCTCGGTCTACTCAGGCATCCGCGTCTCCGAC
AACTTGCCGGTGGCCATCATGCACGTGGAGAAGGACCGGATTTCCGACTGGGAGAGCTG
CCTAATGGCACTCGAGTGCCCATGGAAGTGGTCTGCTGAAGAAGGTGAGCTCGGGTTTC
TCCGGCGTCATTAGGCTCCTGGACTGGTTCGAGAGGCCCGACAGTTTCGCTCCTGATCCTG
GAGAGGCCCGAGCCGGTGAAGATCTCTTCGACTTCATCACGAAAGGGAGCCCTGCAA
GAGGAGCTGGCCCGCAGTCTCTTCTGGCAGGTGCTGGAGGCCGTGCGGCACTGCCACAAC
TGCGGGGTGCTCCACCGGACATCAAGGACGAAAACATCCTTATCGACCTCAATCGCGGC
GAGCTCAAGCTCATCGACTTCGGGTGCGGGGCGCTGCTCAAGGACACCGTCTACACGGAC
TTCGATGGGACCCGAGTGTATAGCCCTCCAGAGTGGATCCGCTACCATCGCTACCATGGC
AGGTCGGCGGCAGTCTGGTCCCTGGGGATCCTGCTGTATGATATGGTGTGTGGAGATATT
CCTTTTCGAGCATGACGAAGAGATCATCAGGGGCCAGGTTTTCTTCAGGCAGAGGGTCTCT
TCAGAAATGTCAGCATCTCATTAGATGGTGTGCTTGGCCCTGAGACCATCAGATAGGCCAAC
TTCGAAGAAATCCAGAACCATCCATGGATGCAAGATGTTCTCCTGCCCCAGGAAACTGCT
GAGATCCACCTCCACAGCCTGTGCGCCGGGGCCAGCAAATAG
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Clone variation with respect to NM\_002648.3  
200 a=>t;201 a=>g



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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for mutant NM_002648 unedited CCGCCGTTGAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAAC CGTCAGAAATTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACCAGCGGGCGGGACCCGGC AGCAGCAGCAGCAGCAGCAGCAACCACTAGCCTCCTGCCCCGCGGCTGCCGCACGAGCCCCACGA GCCGCTCACCCCGCGTTCTCAGCGTGCCCGACCCCGTGGCGCGCCCTCCCGCCGCCAGTCCCGGA GCGCCCTCAGTTGTCTCCGACTCGCCCTCGGCCCTCCGCGCCAGCCGACGCGACAGCCGCACTGCCTC CCGGCAGCCACAGCCACAGCCCCAGCCCAGGCATAGCCTTGGGCACAGCCCCGGTCCCGGCTCTGGGG GAAGCTCCTTGGGGAAACGGTCTGCCCCGAACATCTGGGAAGGTTGGGATGGCTTTTGTCAAAAATCAC CTCGCTTGCCCACTGGGCCCGCCGCGCCTTGAAGAACCTGCACGCCCCAGCTGGGGCCCGGGAAGGGA AAGGAACCCCGGATTTCGTTTTCCCGTGGGGCCCCGTTTGGGGCAGGGGGGTTTGTCTGTTTACT GGGGCTCCGTTTTTGAACATTTGGGGGGGCCATTTGCCCTTAAAAACACCGTTTTCCAGGGGGG AAACCGCCATGGACCCCACTGCCCAAGAGAGTGCCCTGATAAAAAAGGACACTGTGTTTCCACGGCTT ATGCGCTCGAGAGTGGTAAAGAGCCAATTTCTCTGTCTAGAGAGCGCCGCTATTTCTTTATCAC GAGAGGACACCGAGAGTCGGAGCGCTCCTTGAGAGTGAGCAGCGCAGTGACACGAGGG
<b>Kinase Domain Sequence:</b>	>SC323357 kinase domain raw sequence. By performing <a href="#">BLASTX</a> analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation CKACKMGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAACCGTC AGAATTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACCAGCGGGCGGGACCCGGCAGCA GCAGCAGCAGCAGCAGCAACCACTAGCCTCCTGCCCCGCGGCTGCCGCACGAGCCCCACGAGCCG CTACCCCGCGTTCTCAGCGTGCCCGACCCCGCTGGCGCGCC
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_002648
<b>Insert Size:</b>	2560 bp
<b>OTI Disclaimer:</b>	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 kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." <a href="#">Cell, 2008 May p536-548.</a>
<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_002648.2</a> , <a href="#">NP_002639.1</a>
<b>RefSeq Size:</b>	2684 bp

RefSeq ORF:	942 bp
Locus ID:	5292
UniProt ID:	<a href="#">P11309</a>
Cytogenetics:	6p21.2
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, ES Cell Differentiation/IPS, Protein Kinase
Protein Pathways:	Acute myeloid leukemia, Jak-STAT signaling pathway
Gene Summary:	<p>The protein encoded by this gene belongs to the Ser/Thr protein kinase family, and PIM subfamily. This gene is expressed primarily in B-lymphoid and myeloid cell lines, and is overexpressed in hematopoietic malignancies and in prostate cancer. It plays a role in signal transduction in blood cells, contributing to both cell proliferation and survival, and thus provides a selective advantage in tumorigenesis. Both the human and orthologous mouse genes have been reported to encode two isoforms (with preferential cellular localization) resulting from the use of alternative in-frame translation initiation codons, the upstream non-AUG (CUG) and downstream AUG codons (PMIDs:16186805, 1825810).[provided by RefSeq, Aug 2011]</p> <p>Transcript Variant: This variant (1) encodes two isoforms resulting from the use of alternate in-frame, translation initiation codons. This RefSeq represents the shorter isoform (2, also known as Pim-1S) derived from the use of a downstream AUG (at nt 431-433). Pim-1S has been shown to localize predominantly in the nucleus (PMID:16186805).</p>