

## Product datasheet for **SC319573**

### **PATZ1 (NM\_032051) Human Untagged Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PATZ1 (NM_032051) Human Untagged Clone
Tag:	Tag Free
Symbol:	PATZ1
Synonyms:	dj400N23; MAZR; PATZ; RIAZ; ZBTB19; ZNF278; ZSG
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\_032051.1  
 CTATGTGGGGGTGGTGCACCCCGCAGTCTAGACAGTCTGATCCGGGCTGGGGCGTGT  
 CACTCGGCGCACCTGCGAGACTACAGAGCCTCGGGCCGGCACGTGTGGGAGTGTGGACA  
 CGTCTGCTGCGCCCCGCTTCTCGCTGCTGAGGGGAAGGGAGGGGGCGGGCAGGTGCAGCG  
 GCCGGGCTAGTGGGAGGGGGCGGGCCATGGAGCGGGTGAACGACGCTTCGTGCGGGCC  
 GTCTGGCTGCTACACATAACCAGGTGAGCAGACACAGCAGGAGATGCTGCACAACCTGAA  
 CCAGCAGCGCAAAAACGGCGGGCGCTTCTGCGACGTGCTTTGCGGGTAGGCGACGAGAG  
 CTTCCCAGCGCACCGCGCGTGTGCGCCCTGCAGCGACTACTTTGAGTCGGTGTTCAG  
 CGCCAGTTGGGCGACGGCGGAGCTGCGGACGGGGTCCGGCTGATGTAGGGGGCGCGAC  
 GGCAGCACCAGCGCGGGGCGGGGAGCTGGAGATGCACACTATCAGCTC  
 CAAGGTATTTGGGACATTCTGGACTTCGCTACACTTCCCGCATCGTGGTGGCCTTGA  
 GAGCTTCCCGAACTCATGACGGCCGCAAGTTCCTGCTGATGAGGTGGTTATCGAGAT  
 CTGCCAGGAAGTCATCAAACAGTCCAACGTACAGATCCTGGTACCCCTGCCCGCGCGA  
 TATAATGCTCTTTCGCCCCCTGGGACCTCGGACTTGGGCTTCCCTTTGGACATGACCAA  
 CGGGCAGCCTTGGCAGCAACAGCAATGGCATCGCCGCGCAGCATGCAGCCAGAGGAGGA  
 GGAGCTCGGGCGCTGTGTCAGCCATTGCAGGCCAAGCCTCTTTCCTGTGTTACCTGG  
 GGTGGACCGCTTGCCCATGGTGGCTGGACCCCTATCCCCCAACTGCTGACTTCCCCATT  
 CCCCAGTGTGGCATCCAGTGCCTTCCCTGACTGGCAAGCGAGGCCGGGGCCGCCAAG  
 GAAGGCCAACCTGCTGGACTCAATGTTTGGTCCCCAGGGGGCTGAGGGAGGCAGGCAT  
 CCTTCCATGCGGTCTATGTGTAAGGTGTTCACTGATGCCAACCGGCTCCGGCAGCACGA  
 GGCCAGCACGGTGTACCAGCCTCCAGCTGGGCTACATCGACCTTCTCCTCCGAGGCT  
 GGGTGAGAATGGCTACCATCTCTGAAGACCCGACGGCCCCGAAAGAGGAGCCGGAC  
 CAGGAAGCAGGTGGCTTGTGAGATCTGCGGCAAGATCTTCCGTGATGTGTATCATCTTAA  
 CCGGCACAAGCTGTCCACTCTGGGAGAAGCCCTACTCTGCCCTGTGTGGTGGTGGC  
 GTTCAAGAGAAAAGACCGCATGTCTACCATGTGCGGTCCCATGATGGGTCCGTGGGCAA  
 GCCTTACATCTGCCAGAGCTGTGGAAAGGCTTCTCCAGGCTGATCACTTGAACGGACA  
 TATCAAGCAGGTGCACACTTCTGAGCGGCTCACAAGTGTGAGGTGGGTTGGGAGCAG  
 CAGCGGCTGCCGCCCTGGAACCTTCTCCTAGCGACCTGCCATCATGGGACTTTGCCCA  
 GCCTGCTTTGTGGAGTGTCCCATTCGGTTCCTGACACCGCCTTTTCCCTTTCTCTAAA  
 AAAATCATTCCCAGCCCTGAAAACCTGGGCCAGCACACTCCAGCAACACTCTCTCTG  
 CCCAGCCCCGCCGGATATCTGAGGCAGGCTGGACCACCCAGAGGGCAGCAGGGCCTT  
 TACCCAGTGGCCTGTGGCTAGCCTGGGCTCCCTGGAGAGGTTGACAGTGGAAGGGAA  
 CAGGAGGGGCATTTGGCCTGAGACCCCTGCTTTTGGGAGAGGCTAGCAGGGTGGTTCCTG  
 CCCAGCATGCCAGCTCCTCCCTGGGTGACTCGGAGTCTTTCCCATGTCAGAGCCCCAA  
 ATGGGGGTAGCAAAGGAGCACCTTCTGGAACCCCTATAGCATCCAAGTTTCTTTCTGGG  
 CTCTCTTGCCTTTTCCCCCTTTCACAGATGGCACCCCTGGGCATCTGTCCTTGCCTAGG  
 TGATTTTGGAGGTTGGTGCCTTCTGGGAACTAGCCACCAGCTTATCTGCTTCCCTTCCC  
 CTGGCATCACTTCCATAGGCCTGGGTTTCTAGACTGGGGCTGGCCACCCCTTTCCCC  
 ACTCCACGAGTGAGTCGGCCTCCAGAGAAGACTGGCACAATTCCAAGTCAAGTCAACCA  
 TGCTGCCCTCTGCCCTTCCACTCAGATCTAGATCCTGCTTTCATTTCTGGCTAGTGAAG  
 TAGACTTTTGTGTTTTTGTGTTTATTAGCAGGTCTGCTCAGGAACCAAACTAATGAGTA  
 GCTTTATATTGGGCCACCCCAATATATGGCTTTGGGGGCTGAAAAAGCAGATGTAGACCC  
 CCTCCCTCGGATCCTTATTGGTGTGCCCTTATGCACTCCGACACTCTGCGGGTGAACA  
 GGAGTGATGATAAAATTTTCTTCTAAAAA  
 AA

**Restriction Sites:** Please inquire

**ACCN:** NM\_032051

<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 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>	<u><a href="#">NM_032051.1</a></u> , <u><a href="#">NP_114440.1</a></u>
<b>RefSeq Size:</b>	3021 bp
<b>RefSeq ORF:</b>	1614 bp
<b>Locus ID:</b>	23598
<b>UniProt ID:</b>	<u><a href="#">Q9HBE1</a></u>
<b>Cytogenetics:</b>	22q12.2
<b>Domains:</b>	BTB, AT_hook, zf-C2H2
<b>Protein Families:</b>	Transcription Factors

**Gene Summary:**

The protein encoded by this gene contains an A-T hook DNA binding motif which usually binds to other DNA binding structures to play an important role in chromatin modeling and transcription regulation. Its Poz domain is thought to function as a site for protein-protein interaction and is required for transcriptional repression, and the zinc-fingers comprise the DNA binding domain. Since the encoded protein has typical features of a transcription factor, it is postulated to be a repressor of gene expression. In small round cell sarcoma, this gene is fused to EWS by a small inversion of 22q, then the hybrid is thought to be translocated (t(1;22)(p36.1;q12). The rearrangement of chromosome 22 involves intron 8 of EWS and exon 1 of this gene creating a chimeric sequence containing the transactivation domain of EWS fused to zinc finger domain of this protein. This is a distinct example of an intra-chromosomal rearrangement of chromosome 22. Four alternatively spliced transcript variants are described for this gene. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (4) differs in the 3' UTR and has multiple coding region differences (compared to variant 1), one of which results in a frameshift. This results in a shorter protein (short isoform) with a distinct C-terminus, compared to the long C isoform. This short isoform interacts with RING finger protein 4 through its A-T hook DNA binding domain. It acts as a transcriptional repressor, whereas its partner RING finger protein 4 behaves as a transcriptional activator. Thus the association of this isoform with RING finger protein 4 seems to switch activation to repression.