

## Product datasheet for **RC205802**

### **PATZ1 (NM\_032051) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PATZ1 (NM_032051) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PATZ1
Synonyms:	dj400N23; MAZR; PATZ; RIAZ; ZBTB19; ZNF278; ZSG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC205802 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGGAGCGGGTGAACGACGCTTCGTGCGGCCCGTCTGGCTGCTACACATACCAGGTGAGCAGACACAGCA  
 CGGAGATGCTGCAACCTGAACCAGCAGCGCAAAAACGCGGGCGCTTCTGCGAGCTGCTTTCGGGT  
 AGGCGACGAGAGCTTCCAGCGCACCGCGCGTCTGGCCGCTGCAGCGAGTACTTTGAGTCGGTGTTC  
 AGCGCCAGTTGGGCGACGGCGGAGCTGCGGACGGGGTCCGGCTGATGTAGGGGCGCGACGGCAGCAC  
 CAGGCGCGGGGCGGGGCGAGCCGGAGCTGGAGATGCACACTATCAGCTCCAAGGATTTGGGGACAT  
 TCTGGACTTCGCCTACACTTCCCGCATCGTGGTGCCTTGGAGAGCTTCCCGAACTCATGACGGCCGCC  
 AAGTTCCTGCTGATGAGGTGGTTATCGAGATCTGCCAGGAAGTCATCAAACAGTCCAACGTACAGATCC  
 TGGTACCCCTGCCCGCGCGATATAATGCTCTTTCGCCCCCTGGGACCTCGGACTTGGCTTCCCTTT  
 GGACATGACCAACGGGGCAGCCTTGGCAGCCAACAGCAATGGCATCGCCGCGAGCATGCAGCCAGAGGAG  
 GAGGCAGCTCGGGCGGCTGGTGCAGCCATTGCAGGCCAAGCCTCTTTCGCTGTGTACCTGGGGTGGACC  
 GCTTGCCCATGGTGGCTGGACCCATATCCCCCAACTGCTGACTTCCCCATTCCCCAGTGTGGCATCCAG  
 TGCCCCCTCCCCTGACTGGCAAGCGAGGCCGGGGCCGCCAAGGAAGGCCAACCTGCTGGACTCAATGTTT  
 GGGTCCCAGGGGCGCTGAGGGAGGCAGGCATCCTTCCATGCGGTCTATGTGTAAGGTGTTCACTGATG  
 CCAACCGGCTCCGGCAGCAGGAGGCCAGCAGGTGTACCAGCCTCCAGCTGGGCTACATCGACCTTCC  
 TCCTCCGAGGCTGGGTGAGAATGGGCTACCCATCTCTGAAGACCCGACGGCCCCGAAAGAGGAGCCGG  
 ACCAGGAAGCAGGTGGCTTGTGAGATCTGCGGCAAGATCTCCGTGATGTGTATCATCTTAACCGGCACA  
 AGCTGTCCCACTCTGGGAGAAGCCCTACTCTGCCCTGTGTGGGTTGCGGTTCAAGAGAAAAGACCG  
 CATGTCCTACCATGTGCGGTCCCATGATGGGTCCGTGGGCAAGCCTTACATCTGCCAGAGCTGTGGGAAA  
 GGCTTCTCCAGGCTGATCACTTGAACGACATATCAAGCAGGTGCACACTTCTGAGCGGCTCACAAAGT  
 GTCAGGTGTGGTGGGAGCAGCAGCGGCTGCCGCCCTGGAACCTTCTCTAGCGACTGCCATCATG  
 GGACTTTGCCAGCCTGCTTTGTGGAGGTGTCCTTCCGTTCTGACACCGCTTTTCCCTTTCTCTA  
 AAAAAATCATTCCAGCCCTTGAACCTGGGCCAGCAGCACTCCAGCAACTCTTCTGCCAGCCC  
 CGCCGGGATATCTGAGGCAGGCTGGACCACCCAGAGGGCAGCAGGGCCTTACCCAGTGGCTGTTGG  
 C

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC205802 protein sequence  
 Red=Cloning site Green=Tags(s)

MERVNDASCGPSGCYTYQVSRHSTEMLHNLNQQRKNGRFGDVLRLRVGDESFPAAHRAVLAACSEYFESVF  
 SAQLGDGGAADGGPADVGGATAAPGGGAGGSRELEMHTISSKVFGLDFAYTSRIVVRLESFPELMTAA  
 KFLLMRSVIEICQEVIKQSNVQILVPPARADIMLFRPPGTSDLGFPLDMTNGAALAANSNGIAGSMQPEE  
 EAARAAGAAIAGQASLPVLPVDRPLPMVAGPLSPQLLTSFPFSVASSAPPLTGKRGRGRPRKANLLDSMF  
 GSPGGLREAGILPCGLCGKVFDTANRLRQHEAQHGVTSLQLGYIDLPPRLGENGLPISEDPDGPGRKRSR  
 TRKQVACEICGKIFRDVYHLNRHKLSHSGEKPYSKPCVGLRFKRKDRMSYHVRSHDGSVGPYICQSCGK  
 GFSRPDHLNGHIKQVHTSERPHKCQVWVGSSSGLPPELPLPSDLPSWDFAQPALWRSSHSVPDTAFSLSL  
 KKSFPALLENLGAHSSNTLFCPAPPGYLRQWTTPEGSRAFTQWPVG

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6564\\_c06.zip](https://cdn.origene.com/chromatograms/mk6564_c06.zip)

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_032051

**ORF Size:** 1611 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_032051.2](#)

**RefSeq Size:** 3021 bp

**RefSeq ORF:** 1614 bp

**Locus ID:** 23598

UniProt ID: [Q9HBE1](#)

Cytogenetics: 22q12.2

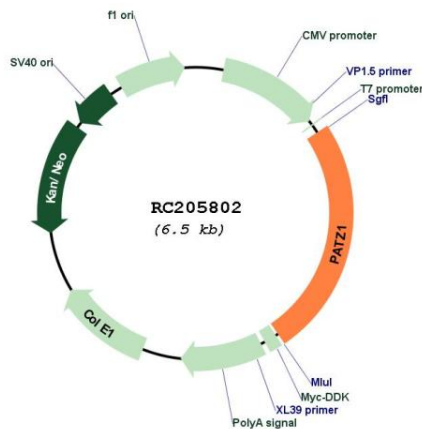
Domains: BTB, AT\_hook, zf-C2H2

Protein Families: Transcription Factors

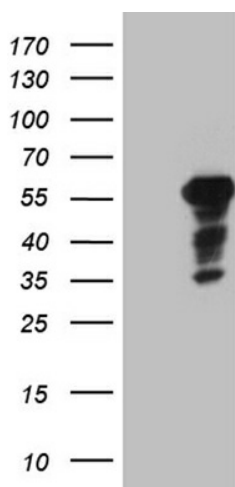
MW: 57.6 kDa

**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]

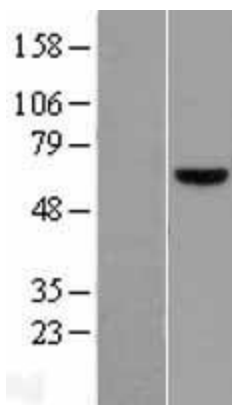
**Product images:**



Circular map for RC205802



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PATZ1 (Cat# RC205802, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PATZ1 (Cat# [TA809258])(1:2000). Positive lysates [LY410365] (100ug) and [LC410365] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY410365]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205802 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).