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# Product datasheet for RC229361

## DAZ1 (NM_004081) Human Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | DAZ1 (NM_004081) Human Tagged ORF Clone |
| **Tag:** | Myc-DDK |
| **Symbol:** | DAZ1 |
| **Synonyms:** | DAZ; SPGY |
| **Mammalian Cell Selection:** | Neomycin |
| **Vector:** | pCMV6-Entry (PS100001) |
| **E. coli Selection:** | Kanamycin (25 ug/mL) |

**ORF Nucleotide Sequence:**

>RC229361 ORF sequence, codon optimized.
Due to the complexity of NM_004081, the ORF clone is codon optimized for mammalian Expression.
The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCTGCAGCTAACCCCGAGACACCTAATAGTACCATTAGCAGGGAGGCGAGCACCCAGTCATCCAGCG
CAGCAGCATCTCAGGGCTGGGTCCTCCCTGAGGGTAAGATTGTGCCCAACACTGTTTTCGTGGGGGGCAT
CGATGCTAGAATGGATGAAACCGAGATCGGGTCCTGCTTCGGCAGATATGGATCAGTAAAAGAGGTGAAA
ATAATCACCAATAGAACAGGCGTTAGTAAAGGTTACGGTTTCGTTAGCTTCGTCAACGACGTGGATGTGC
AGAAGATCGTAGGCAGCCAAATACACTTTCATGGGAAGAAGTTGAAGCTTGGACCAGCCATTCGCAAACA
GAAGCTGTGCGCTAGACACGTGCAGCCAAGACCACTTGTGGTAAATCCACCCCCCCCTCCACAGTTTCAG
AATGTTTGGAGAAACCCCAACACCGAGACATATCTGCAGCCTCAGATCACACCCAACCCAGTCACCCAGC
ACGTCCAAAGCGCCGCGAATCCAGAAACTCCAAACAGCACCATCTCTAGAGAGGCCTCCACACAGTCCAG
CTCTGCTGCCGCTAGCCAGGGGTGGGTACTTCCCGAGGGAAAGATCGTGCCAAATACCGTATTCGTGGGG
GGGATAGATGCCCGCATGGACGAAACTGAGATAGGATCATGCTTCGGCAGGTACGGTTCCGTGAAGGAGG
TTAAGATTATCACCAATCGGACGGGCGTTAGTAAGGGGTACGGATTCGTGAGTTTCGTGAATGACGTCGA
TGTGCAAAAAATCGTCGGCTCACAGATTCATTTCCACGGGAAGAAACTCAAGCTGGGGCCAGCAATCAGG
AAGCAGAAGTTGTGCGCACGGCATGTCCAGCCAAGACCTTTGGTGGTCAACCCACCCCCGCCTCCTCAAT
TTCAGAACGTGTGGAGAAATCCAAATACAGAAACCTACTTGCAGCCACAGATCACTCCAAATCCCGTTAC
ACAGCACGTGCAGTCAGCAGCCAACCCCGAGACGCCAAACTCAACAATTTCCAGGGAAGCCAGCACCCAG
TCCTCTAGCGCTGCCGCTTCACAGGGGTGGGTCCTGCCGGAAGGTAAGATTGTCCCGAATACTGTGTTCG
TAGGCGGAATCGATGCCCGCATGGATGAGACGGAAATTGGCAGCTGCTTCGGCAGGTACGGCTCCGTTAA
GGAAGTGAAAATCATCACTAATCGCACTGGTGTGTCAAAGGGGTACGGGTTCGTTAGCTTTGTGAACGAT
GTCGATGTCCAGAAGATAGTCGGAAGCCAGATCCATTTTCACGGAAAGAAATTGAAGCTTGGCCCTGCAA
TCCGGAAGCAGAAGCTCTGTGCCAGGCATGTTCAACCACGCCCCCTCGTGGTTAATCCCCCTCCGCCTCC
CCAGTTCCAGAATGTTTGGCGCAATCCGAACACCGAGACTTACCTGCAGCCCCAAATCACCCCAAATCCT
GTGACACAGCATGTGCAGGCCTATAGCGCTTACCCCCATTCACCGGGACAGGTGATCACTGGCTGTCAGC
TGCTGGTTTATAACTACCAGGAATACCCCACATATCCCGACAGCGCTTTTCAGGTGACAACTGGCTATCA
ACTGCCCGTCTACAACTATCAACCCTTCCCAGCGTATCCCCGGTCACCTTTCCAGGTGACGGCGGGTTAC
CAGCTTCCTGTGTACAATTACCAGGCATTTCCCGCATACCCTAACTCTCCTTTTCAAGTTGCTACCGGAT
ATCAGTTCCCAGTCTACAACTATCAGCCCTTCCCTGCCTACCCCTCTTCACCCTTCCAAGTGACCGCAGG
CTATCAATTGCCAGTGTACAACTACCAGGCTTTCCCCGCATATCCCAATAGTCCTTTCCAAGTTGCTACT
GGGTACCAATTTCCAGTGTATAATTATCAGGCCTTCCCAGCCTATCCAAATAGCCCTGTGCAGGTAACCA
CAGGTTATCAGCTGCCAGTCTATAATTACCAGGCCTTTCCCGCGTACCCTTCCTCCCCCTTTCAGGTGAC
CACTGGTTACCAGCTGCCTGTGTACAACTATCAAGCCTTTCCAGCATATCCCAATTCCGCTGTGCAGGTT
ACAACCGGTTATCAGTTCCATGTGTATAACTACCAGATGCCCCCCCAATGCCCTGTGGGGGAGCAGCGGA
GAAACCTCTGGACAGAGGCCTATAAATGGTGGTATCTGGTGTGCCTGATACAGCGCCGAGAT

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

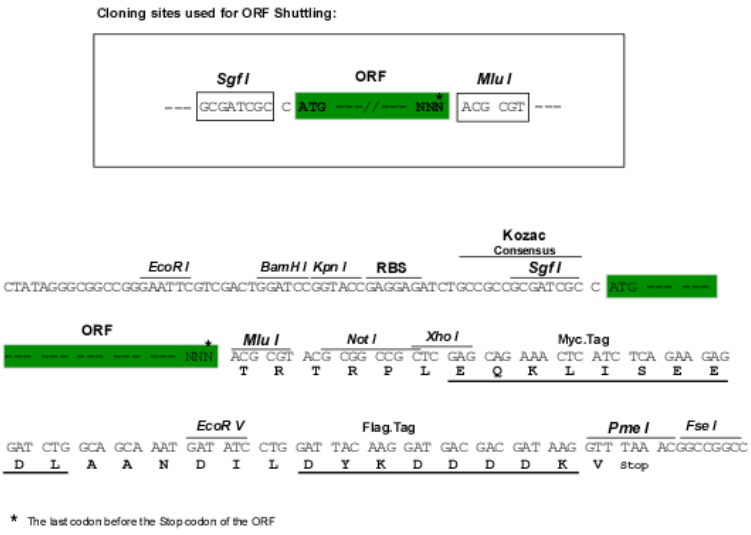
>RC229361 representing NM_004081
Red=Cloning site Green=Tags(s)

MSAANPETPNSTISREASTQSSSAAASQGWVLPEGKIVPNTVFVGGIDARMDETEIGSCFGRYGSVKEVK
IITNRTGVSKGYGFVSFVNDVDVQKIVGSQIHFHGKKLKLGPAIRKQKLCARHVQPRPLVVNPPPPPQFQ
NVWRNPNTETYLQPQITPNPVTQHVQSAANPETPNSTISREASTQSSSAAASQGWVLPEGKIVPNTVFVG
GIDARMDETEIGSCFGRYGSVKEVKIITNRTGVSKGYGFVSFVNDVDVQKIVGSQIHFHGKKLKLGPAIR
KQKLCARHVQPRPLVVNPPPPPQFQNVWRNPNTETYLQPQITPNPVTQHVQSAANPETPNSTISREASTQ
SSSAAASQGWVLPEGKIVPNTVFVGGIDARMDETEIGSCFGRYGSVKEVKIITNRTGVSKGYGFVSFVND
VDVQKIVGSQIHFHGKKLKLGPAIRKQKLCARHVQPRPLVVNPPPPPQFQNVWRNPNTETYLQPQITPNP
VTQHVQAYSAYPHSPGQVITGCQLLVYNYQEYPTYPDSAFQVTTGYQLPVYNYQPFPAYPRSPFQVTAGY
QLPVYNYQAFPAYPNSPFQVATGYQFPVYNYQPFPAYPSSPFQVTAGYQLPVYNYQAFPAYPNSPFQVAT
GYQFPVYNYQAFPAYPNSPVQVTTGYQLPVYNYQAFPAYPSSPFQVTTGYQLPVYNYQAFPAYPNSAVQV
TTGYQFHVYNYQMPPQCPVGEQRRNLWTEAYKWWYLVCLIQRRD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

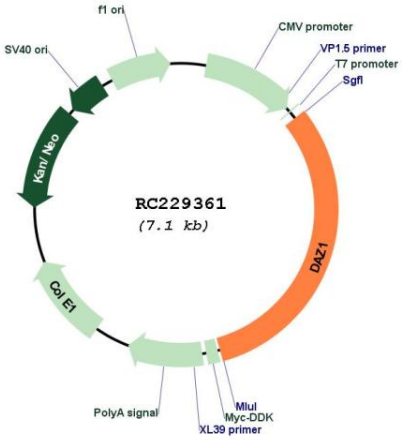
**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



| | |
|---|---|
| **ACCN:** | NM_004081 |
| **ORF Size:** | 2232 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.<br>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.<br>3. Close the tube and incubate for 10 minutes at room temperature.<br>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.<br>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_004081.5, NP_004072.3 |
| **RefSeq Size:** | 4419 bp |
| **RefSeq ORF:** | 2235 bp |
| **Locus ID:** | 1617 |
| **UniProt ID:** | Q9NQZ3 |
| **Cytogenetics:** | Yq11.223 |
| **MW:** | 82.8 kDa |
| **Gene Summary:** | This gene is a member of the DAZ gene family and is a candidate for the human Y-chromosomal azoospermia factor (AZF). Its expression is restricted to premeiotic germ cells, particularly in spermatogonia. It encodes an RNA-binding protein that is important for spermatogenesis. Four copies of this gene are found on chromosome Y within palindromic duplications; one pair of genes is part of the P2 palindrome and the second pair is part of the P1 palindrome. Each gene contains a 2.4 kb repeat including a 72-bp exon, called the DAZ repeat; the number of DAZ repeats is variable and there are several variations in the sequence of the DAZ repeat. Each copy of the gene also contains a 10.8 kb region that may be amplified; this region includes five exons that encode an RNA recognition motif (RRM) domain. This gene contains three copies of the 10.8 kb repeat. However, no transcripts containing three copies of the RRM domain have been described; thus the RefSeq for this gene contains only two RRM domains. [provided by RefSeq, Jul 2008] |

## Product images:




Circular map for RC229361