

## Product datasheet for **MR200389**

### **Pold4 (NM\_027196) Mouse Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Pold4 (NM\_027196) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Pold4  
**Synonyms:** 2410012M21Rik; AI463381; AW060307; p12; Polds  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR200389 representing NM\_027196  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAAACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGATCGCC

ATGGGTCGGAAGCGGTTCACTACTGACTCCTATCCTGTTGTGAAGAAGAGGGAGGGGCCCTGGGCACA  
GCAAGGGAGAGCTGGCACCCGAGCTAGGGGAAGACACCCAGTCCCTCAGCCAGGAGGAAACAGAGCTGGA  
GCTGCTGAGGCAGTTTGACCTGGCCTGGCAGTATGGGCCTTGACAGGTATCACAAGGCTGCAGCGCTGG  
AGTCGGGCAGAGCAGATGGCTTGAAGCCCCCCTAGAGGTGTACCAAGTGTGAAGGCACACCCTGAAG  
ACCCTCACTTCCAATGCAGCCTGTGGCATCTCTACCCACTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Chromatograms:** [https://cdn.origene.com/chromatograms/mm9052\\_b09.zip](https://cdn.origene.com/chromatograms/mm9052_b09.zip)

**Restriction Sites:** Sgfl-MluI


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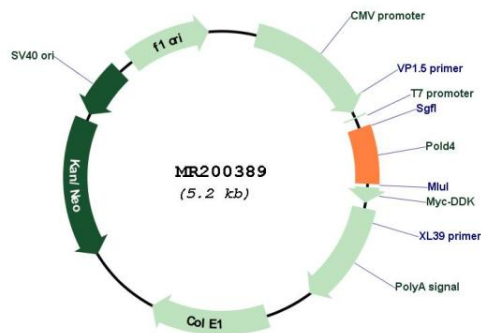
Cloning Scheme:



ACCN:	NM_027196
ORF Size:	321 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. <a href="#">More info</a>
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:	<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u><a href="#">NM_027196.4</a></u>
<b>RefSeq Size:</b>	933 bp
<b>RefSeq ORF:</b>	324 bp
<b>Locus ID:</b>	69745
<b>UniProt ID:</b>	<u><a href="#">Q9CWP8</a></u>
<b>Cytogenetics:</b>	19 A
<b>MW:</b>	12.9 kDa
<b>Gene Summary:</b>	As a component of the tetrameric DNA polymerase delta complex (Pol-delta4), plays a role in high fidelity genome replication and repair. Within this complex, increases the rate of DNA synthesis and decreases fidelity by regulating POLD1 polymerase and proofreading 3' to 5' exonuclease activity. Pol-delta4 participates in Okazaki fragment processing, through both the short flap pathway, as well as a nick translation system. Under conditions of DNA replication stress, required for the repair of broken replication forks through break-induced replication (BIR), a mechanism that may induce segmental genomic duplications of up to 200 kb. Involved in Pol-delta4 translesion synthesis (TLS) of templates carrying O6-methylguanine or abasic sites. Its degradation in response to DNA damage is required for the inhibition of fork progression and cell survival.[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for MR200389