

## Product datasheet for **MG217976**

### **Aplf (NM\_024251) Mouse Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	Aplf (NM_024251) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Aplf
Synonyms:	2010301N04Rik; AI452191
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG217976 representing NM\_024251  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCAGCGTGCCTGAGGGAGGTGGCTACGAGATAACAGACAAAAGAGTATCCAGAAGACATGCCATTC  
 TTGAAGTGGTTGATAGTCAGCTTCAATCAAGCCAATCCATAGGAATCCATGTTTCTACCACTCCTCGGA  
 GAAGAGCCAACACTCGCCAATGGAGACGCAAGTGTGGAGCCAGTTGCATCCCGGGGATAGCTTTTCCCTG  
 TTACTIONGACAAGTACGCTTTCCGTGTTTCTCTGCAGAATCTGAAGTGGAGATGGAGTGTACTCTGAGAA  
 ACAGTCAGATGCTTGTGAAGATGATATATTGAGTGGAGATGCAGAAGTCCCCTGTGGTAACTTACCTGA  
 TAAGACAACACTGGTGCCTCACAGCTGCAAGGAAGCCCTGAAATAACCAAGACCAAGTGTCCCACCATAGAT  
 CCTATGTCCTCTCAGGTGAATGCAGAGCTTTCAGTGAGCACCAGCCACGTCTACCCAGAGGAAAAGAA  
 TCCTCCAGCTTGGATGTTGGCGGAAAAGTCTAAGTGACCAGAGCCCTCCACACCAGCTGAGGGGGGAGA  
 TAAGGATGTCATCCAGAGGAGTGGAAAAGCAGGAACCTGTGAAGATAGAACCCAGGAAACACATCATGG  
 CATGGGAAAAGCGGCTTAGTCCATCAGGAAATCAAAAAGTGTGTGACGGGAACAAGACCCTGGGAAGA  
 AGTGACAGAAAAGGCTGACCAAGAAGGACCGGGTGTTCCTCTGAGAATGTTCCAGAATCATCATCTTCAAA  
 CATAGTAAAGGACCCAGATGTGGATATTGTGAAGACAAAATAACAGAAGGACGGGATTTTAAAGAGGAA  
 CTTGGTGAAGTCTCTAACATAAAGCCGCCACCAACCAACCAAAATGAAGAGGGCGAGAGTTGTGCAC  
 GTGTCCAAAGCAAGTACCTCCTGAGAAATCTCAAGGATGCCATCCTGAGTCTAGCTCTGCTCCCTCCAG  
 TCCTGATGCTTTGCACACAGACACAGCTGACCCAGTGTGGGCTGTTGAGAAGAAAGCAAGTCCGGAGG  
 ACGGCTGCATGTATGGGGCAACTGCTACAGGAGGAACCCCTCCACTTCAACACTTCAGCCACCCTG  
 GTGACAGTACTATGGAGAGGTACATGGCACAGATGAAGGTGTGATTGGTGACAGGCCCGGATGTCCTA  
 TGGAGCGTCTTGTACAGGAAGAACCCCAAGCACAAGATGGAATATAGGCACAGTGCACCTCCAGCCAGA  
 GTTGCTCTGGATGAAGATGACGATGATGTCGGCAACCCAGTGCAGATGAGGACGAGGAAGACTATGAGC  
 CGACAGATGAAGATTCTGATTGGCACCCAGGAAAGGACGATGAGGAGCAGGAAGATGTGGATGAGCTTTT  
 GAAAGAAGCAAAAAGGTTTATGAGAAGGAAAAG

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>MG217976 representing NM\_024251  
 Red=Cloning site Green=Tags(s)

MPSVPEGGGYEITDKRVSRRHAILEVVDSQLRIKPIHRNPCFYQSSEKSQLHSPMETQVWSQLHPGDSFSL  
 LLDKYAFRVFSAESEVEMECTLRNSQMLDEDDILSEMOKSPVVNLPDKTTGASQLQGSPEITKTKCPTID  
 PMSSSGECRAFSEHQPRPTQQRKILPAWMLAESLSDQSLSTPAEGGDKDVIQRSGKAGTCDRTPGNTSW  
 HGKKRLSPSGNSKSVSAEQDPGKKCRKADQEGPVSSENVPESSSNIVKDPDVIDVKTNKQKDGILIEE  
 LGEVSKHKAATKPTTNEEGESCARVQSKSPPEKSQLGCHPESSAPSSPDALHTDTADPVLGCSEESKVR  
 TACMYGANCYRRNPLHFQHFHPGSDSYGEVHGTDEGVIIGDRPECPYGASCYRKNPQHKMEYRHSALPAR  
 VALDEDDDDVQPSDEDEEEDYEPTDESDWHPGKDDEEQEDVDELLKEAKRFMRKK

**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_024251

**ORF Size:** 1434 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.

**RefSeq:** [NM\\_024251.4](#), [NP\\_077213.2](#)

**RefSeq Size:** 3148 bp

**RefSeq ORF:** 1437 bp

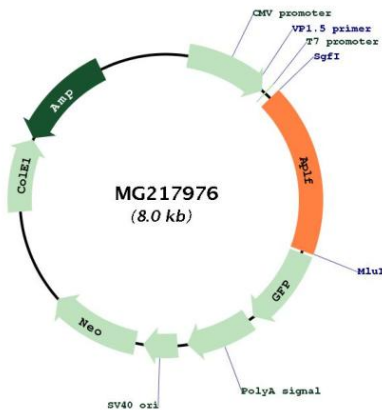
**Locus ID:** 72103

**UniProt ID:** [Q9D842](#)

**Cytogenetics:** 6 D1

**Gene Summary:** Nuclease involved in single-strand and double-strand DNA break repair. Recruited to sites of DNA damage through interaction with poly(ADP-ribose), a polymeric post-translational modification synthesized transiently at sites of chromosomal damage to accelerate DNA strand break repair reactions. Displays apurinic-apyrimidinic (AP) endonuclease and 3'-5' exonuclease activities in vitro. Also able to introduce nicks at hydroxyuracil and other types of pyrimidine base damage. Together with PARP3, promotes the retention of the LIG4-XRCC4 complex on chromatin and accelerate DNA ligation during non-homologous end-joining (NHEJ).[UniProtKB/Swiss-Prot Function]

**Product images:**



Circular map for MG217976