

Product datasheet for **MG218907**

Aplf (NM_001170489) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aplf (NM_001170489) 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:

>MG218907 representing NM_001170489
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCTTCGGACTTCTTTCTGCAGCCTCTGGACGCGCGTCCCGCGTGCCCGTGGGGCCGGGCAGACTG
 TGATAGGCGCGGCCGCTGCTGGGAATAACAGACAAAAGAGTATCCAGAAGACATGCCATTCTTGAAGT
 GGTGATAGTCAGCTTCCAATCAAGCCAATCCATAGGAATCCATGTTTCTACCAGTCTCGGAGAAGAGC
 CAACACTCGCCAATGGAGACGCAAGTGTGGAGCCAGTTGCATCCCGGGATAGCTTTTCCCTGTTACTTG
 ACAAGTACGCTTTCCGTGTTTTCTGCAGAATCTGAAGTGGAGATGGAGTGTACTCTGAGAAACAGTCA
 GATGCTTGATGAAGATGATATATTGAGTGAAGTGCAGAAGTCCCCTGTGGTTAACTTACCTGATAAGACA
 ACTGGTGCCTCACAGCTGCAAGGAAGCCCTGAAATAACCAAGACCAAGTGTCCCACCATAGATCCTATGT
 CCTCTTCAGGTGAATGCAGAGCTTTCAGTGAGCACCAGCCAGTCTACCCAGAGGAAAAGAATCCTCCC
 AGCTTGGATGTTGGCGGAAAGTCTAAGTGACCAGAGCCTCTCCACACCAGCTGAGGGGGGAGATAAGGAT
 GTCATCCAGAGGAGTGGAAAAGCAGGAACCTGTGAAGATAGAACCCAGGAAACACATCATGGCATGGGA
 AAAAGCGCTTAGTCCATCAGGAAATTCAAAAAGTGTGTGACGCGAACAAGACCCCTGGGAAGAAGTGCAG
 AAAGGCTGACCAAGAAGGACCGGTGTTTCTTCTGAGAATGTTCCAGAATCATCATCTTCAAACATAGTA
 AAGGACCCAGATGTGGATATTGTGAAGCAAAATAACAGAAGGACGGGATTTTAAAGAGGAACTTGGTG
 AGGTCTCTAAACATAAAGCCGCCACAAACCAACCACAAATGAAGAGGGCGAGAGTTGTGCACGTGTCCA
 AAGCAAGTCACCTCCTGAGAAATCTCAAGGATGCCATCCTGAGTCTAGCTCTGCTCCCTCCAGTCTGAT
 GCTTTGCACACAGACACAGCTGACCCAGTGTGGGCTGTTCAGAAGAAAGCAAGGTCGGGAGGACGGCT
 TGACTATGGAGAGGTACATGGCACAGATGAAGGTGATTGGTGACAGGCCCGAGTGTCCCTATGGAGCG
 TCTTGTTACAGGAAGAACCCCCAGCACAAAGATGGAATATAGGCACAGTGCACCTTCCAGCCAGAGTTGCTC
 TGGATGAAGATGACGATGATGTCGGGCAACCCAGTGACGATGAGGACGAGGAAGACTATGAGCCGACAGA
 TGAAGATTCTGATTGGCACCCAGGAAAGGACGATGAGGAGCAGGAAGATGTGGATGAGCTTTTGAAGAA
 GCAAAAAGTTCTTTCACCTTGAACAT

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>MG218907 representing NM_001170489
 Red=Cloning site Green=Tags(s)

MPSDFFLQPLDGGPRVPVGPQTVIGRPLLGITDKRVSRRHAILEVVDSQLRIKPIHRNPCFYQSSEKS
 QHSPMETQVWSQLHPGDSFSLLLDKYAFRVFSAESEVEMECTLRNSQMLDEDDILSEMOKSPVVNLPDKT
 TGASQLQGSPEITKTKCPTIDPMSSSGECRAFSEHQPRPTQRKILPAWMLAESLSDQSLSTPAEGGDKD
 VIQRSGKAGTCEDRTPGNTSWHGKRLSPSGNSKSVSAEQDPGKKCRKADQEGPGVSSENVPESSSNIV
 KDPDVDIVKTNKQKDGILIEELGEVSKHKAATKPTTNEEGESCARVQSKSPPEKSQGCHPESSAPSSPD
 ALHTDTADPVLGCSEESKYRRTACMYGANCYRRNPLHFQHF SHPGDSYGEVHGTDEGVIIGDRPECPYGA
 SCYRKNPQHKMEYRHSALPARVALDEDDDDVGPQSDDEDEEYPTDEDSWHPGKDDEEQEDVDELLKE
 AKSSLHLKH

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

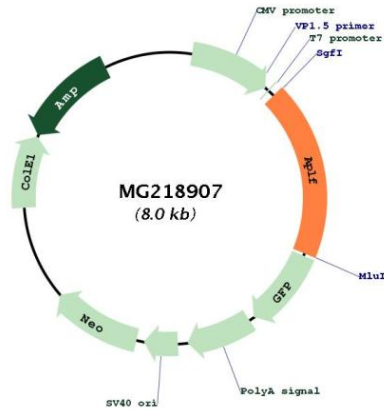


- ACCN:** NM_001170489
- ORF Size:** 1497 bp
- OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each 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_001170489.1](#), [NP_001163960.1](#)
- RefSeq Size:** 3184 bp
- RefSeq ORF:** 1500 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 MG218907