

## Product datasheet for **RG205692**

### Alkaline Phosphatase (ALPL) (NM\_000478) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Alkaline Phosphatase (ALPL) (NM_000478) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Alkaline Phosphatase
Synonyms:	AP-TNAP; APTNAP; HOPS; HPPA; HPPC; HPPI; HPPO; TNALP; TNAP; TNSALP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG205692 representing NM\_000478  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGATTTACCATTCTTAGTACTGGCCATTGGCACCTGCCTTACTAACTCCTTAGTGCCAGAGAAGAGA  
 AAGACCCCAAGTACTGGCGAGACCAAGCGCAAGAGACTGAAATATGCCCTGGAGCTTCAAGACTCAA  
 CACCAACGTGGCTAAGAATGTCATCATGTTCTCTGGGAGATGGGATGGGTGTCTCCACAGTACGGCTGCC  
 CGCATCCTCAAGGGTCAGCTCCACCACAACCCTGGGGAGGAGACCAGGCTGGAGATGGACAAGTTCCCTT  
 TCGTGGCCCTCTCCAAGACGTACAACACCAATGCCAGGTCCTGACAGCGCCGGCACCGCCACCGCCTA  
 CCTGTGTGGGTGAAGGCCAATGAGGGCACCGTGGGGTAAGCGCAGCCACTGAGCGTTCCTGGTGAAC  
 ACCACCCAGGGGAACGAGGTACCTCCATCCTGCGCTGGGCAAGGACGCTGGGAAATCTGTGGCATTG  
 TGACCACCAGAGAGTGAACCATGCCACCCCAAGCGCCGCTACGCCACTCGGCTGACCGGGACTGGTA  
 CTCAGACAACGAGATGCCCTTGAAGCCTTGAAGGACATCGCCTACCAGCTCATGCAT  
 AACATCAGGGACATTGACGTGATCATGGGGGTGGCCGGAATACATGTACCCCAAGAATAAACTGATG  
 TGGAGTATGAGAGTGACGAGAAAGCCAGGGGCACGAGGCTGGACGGCCTGGACCTCGTTGACACCTGGAA  
 GAGCTTCAAACCGAGATACAAGCACTCCCACTTCTGGAACCGCACGGAACCTGACCTTGACCC  
 CACAATGTGGACTACCTATTGGGTCTCTTCGAGCCAGGGGACATGCAGTACGAGCTGAACAGGAACAACG  
 TGACGGACCCGCTCACTCTCCGAGATGGTGGTGGTGGCCATCCAGATCCTGCGGAAGAACCCAAAGGCTT  
 CTTCTTGTGGTGAAGGAGGCAGAATTGACCACGGGCACCATGAAGGAAAAGCCAAGCAGGCCCTGCAT  
 GAGCGGTGGAGATGGACCGGCCATCGGCAGGCAGGACGCTTACCTCCTCGGAAGACTCTATCTTGG  
 TGGTCACTCGGACCATCCACGCTTACATTTGGTGGATACACCCCGTGGCAACTATCTTTGG  
 TCTGGCCCCATGCTGAGTGACACAGACAAGAAGCCCTTCACTGCCATCCTGTATGGCAATGGGCTGGC  
 TACAAGGTGGTGGCGGTGAACGAGAGAATGTCTCCATGGTGGACTATGCTCACAACAACCTACCAGGCGC  
 AGTCTGCTGTGCCCTGCGCCACGAGACCCACGGCGGGGAGGACGTGGCCGTCTTCTCCAAGGGCCCAT  
 GGCGCACCTGCTGCACGGCGTCCACGAGCAGAATACTGCTCCCCACGTGATGGCGTATGCAGCCTGCATC  
 GGGGCCAACCTCGGCCACTGTGCTCCTGCCAGCTCGGCAGGCAGCCTTGTGCAGGCCCTGCTGCTCG  
 CGCTGGCCCTTACCCCTGAGCGTCTGTTC

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>RG205692 representing NM\_000478  
 Red=Cloning site Green=Tags(s)

MISPFLLVLAIGTCLTNSLVPEKEKDPKYWRDQAQETLKYALELQKLNTNVAKNVIMFLGDGMGVSTVTAA  
 RILKQQLHHNPGEEETRLMDKFPFVALSKTYNTNAQVPDSAGTATAYLCGVKANEGTVGVSAAATERSRCN  
 TTQGNVTSILRWAKDAGKSVGIVTTTRVNHATPSAAYAHSADRDWYSDNEMPPEALSQCKDIAIYQLMH  
 NIRDIDVIMGGGRKMYPKNKTDVEYESDEKARGTRLDGLDLVDTWKSFKPRYKHSFIWNRTELLTLDP  
 HNVDYLLGLFEPGDMQYELNRNNVTDPSLSEMVVVAIQILRKNPKGFFLLVEGGRIDHGHHEGKAKQALH  
 EAVEMDRAIGQAGSLTSSEDTLTVVTADHSHVFTFGGYTPRGNSIFGLAPMLSDTDKPFPTAILYNGPG  
 YKVVGGGERENVMVDYAHNNYQAQSAVPLRHETHGGEDVAVFSKGPMAHLLHGVHEQNYVPHVMAYAACI  
 GANLGHCAPASSAGSLAAGPLLLALALYPLSVLF

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_000478

**ORF Size:** 1572 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\\_000478.5](#)

**RefSeq Size:** 2596 bp

**RefSeq ORF:** 1575 bp

**Locus ID:** 249

**UniProt ID:** [P05186](#)

**Cytogenetics:** 1p36.12

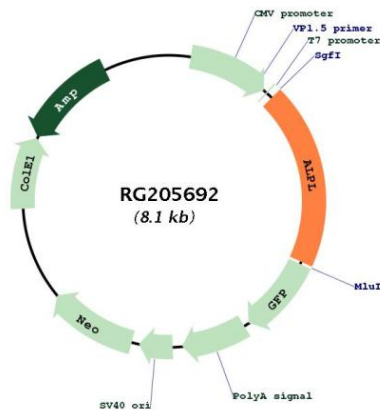
**Domains:** alk\_phosphatase

**Protein Families:** Druggable Genome

**Protein Pathways:** Folate biosynthesis, Metabolic pathways

**Gene Summary:** This gene encodes a member of the alkaline phosphatase family of proteins. There are at least four distinct but related alkaline phosphatases: intestinal, placental, placental-like, and liver/bone/kidney (tissue non-specific). The first three are located together on chromosome 2, while the tissue non-specific form is located on chromosome 1. The product of this gene is a membrane bound glycosylated enzyme that is not expressed in any particular tissue and is, therefore, referred to as the tissue-nonspecific form of the enzyme. Alternative splicing results in multiple transcript variants, at least one of which encodes a preproprotein that is proteolytically processed to generate the mature enzyme. This enzyme may play a role in bone mineralization. Mutations in this gene have been linked to hypophosphatasia, a disorder that is characterized by hypercalcemia and skeletal defects. [provided by RefSeq, Oct 2015]

**Product images:**



Circular map for RG205692