

Product datasheet for **RC205692**

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:	Myc-DDK
Symbol:	Alkaline Phosphatase
Synonyms:	AP-TNAP; APTNAP; HOPS; HPPA; HPPC; HPPI; HPPO; TNALP; TNAP; TNSALP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC205692 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGATTTACCATTCTTAGTACTGGCCATTGGCACCTGCCTTACTAACTCCTTAGTGCCAGAGAAGAGA
 AAGACCCCAAGTACTGGCGAGACCAAGCGCAAGAGACTGAAATATGCCCTGGAGCTTCAAGACTCAA
 CACCAACGTGGCTAAGAATGTCATCATGTTCTCTGGGAGATGGGATGGGTGTCTCCACAGTACGGCTGCC
 CGCATCTCAAGGGTCAGCTCCACCACAACCCTGGGGAGGAGACCAGGCTGGAGATGGACAAGTTCCCTT
 TCGTGGCCCTCTCAAGACGTACAACACCAATGCCAGGTCCTGACAGCGCCGGCACCGCCACCGCCTA
 CCTGTGTGGGTGAAGGCCAATGAGGGCACCGTGGGGTAAAGCGCAGCCACTGAGCGTTCCTGGTGAAC
 ACCACCCAGGGGAACGAGGTCACCTCCATCCTGCGCTGGGCAAGGACGCTGGGAAATCTGTGGCATTG
 TGACCACCAGAGAGTGAACCATGCCACCCCAAGCGCCCTACGCCACTCGGTGACCGGGACTGGTA
 CTCAGACAACGAGATGCCCTGAGGCCTTGAGCCAGGGCTGTAAGGACATCGCCTACCAGTCTATGCAT
 AACATCAGGGACATTGACGTGATCATGGGGGTGGCCGGAATACATGTACCCCAAGAATAAACTGATG
 TGGAGTATGAGAGTGACGAGAAAGCCAGGGGCACGAGGCTGGACGGCCTGGACCTCGTTGACACCTGGAA
 GAGCTTCAAACCGAGATACAAGCACTCCCACTTCTGGAACCGCACGGAACCTCTGACCTTGACCCC
 CACAATGTGGACTACCTATTGGGTCTCTTCGAGCCAGGGGACATGCAGTACGAGCTGAACAGGAACAACG
 TGACGGACCCGTCACCTCCGAGATGGTGGTGGTGGCCATCCAGATCCTGCGGAAGAACCCCAAAGGCTT
 CTTCTTGTGGTGAAGGAGGCAGAATTGACCACGGGCACCATGAAGGAAAAGCCAAGCAGGCCCTGCAT
 GAGGCGGTGGAGATGGACCGGCCATCGGCAGGCAGGCAGCTTGACCTCCTCGGAAGACTCTATCTTGG
 TGGTCACTGCGGACCATTCCACGTCTTACATTTGGTGGATACACCCCGTGGCAACTCATCTTGG
 TCTGGCCCCATGCTGAGTGACACAGACAAGAAGCCCTTCACTGCCATCCTGTATGGCAATGGGCCTGGC
 TACAAGGTGGTGGCGGTGAACGAGAGAATGTCTCCATGGTGGACTATGCTCACAACAACCTACCAGGCGC
 AGTCTGCTGTGCCCTGCGCCACGAGACCCACGGCGGGGAGGACGTGGCCGTCTTCTCAAGGGCCCAT
 GGCGCACCTGCTGCACGGCGTCCACGAGCAGAATACTGCTCCCCACGTGATGGCGTATGCAGCCTGCATC
 GGGGCCAACCTCGGCCACTGTGCTCCTGCCAGCTCGGCAGGCAGCCTTGTGCAGGCCCTGCTGCTCG
 CGCTGGCCCTTACCCCTGAGCGTCTGTTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC205692 protein sequence
 Red=Cloning site Green=Tags(s)

MISPFVLVAIGTCLTNSLVPEKEKDPKYWRDQAQETLKYALELQKLNNTNVAKNVIMFLGDGMGVSTVTAA
 RILKGQLHHNPGEETRLMDKFFVALSKTYNTNAQVPDSAGTATAYLCGVKANEGTVGVSAAATERSRCN
 TTQGNVTSILRWAKDAGKSVGIVTTTRVNHATPSAAYAHSADRDWYSDNEMPPEALSQGCKDIAIYQLMH
 NIRDIDVIMGGGRKMYPKNKTDVEYESDEKARGTRLDGLDLVDTWKSFKPRYKHSFIWNRTELLTLDP
 HNVYLLGLFEPGDMQYELNRNNVTDPSLSEMVVVAIQILRKNPKGFFLLVEGGRIDHGHHEGKAKQALH
 EAVEMDRAIGQAGSLTSSEDTLTVVTADHSHVFTFGGYTPRGNSIFGLAPMLSDTDKPFPTAILYNGPG
 YKVVGGERENVMVDYAHNNYQAQSAVPLRHETHGGEDVAVFSKGPMAHLLHGVHEQNYVPHVMAYAACI
 GANLGHCAPASSAGSLAAGPLLLALALYPLSVLF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

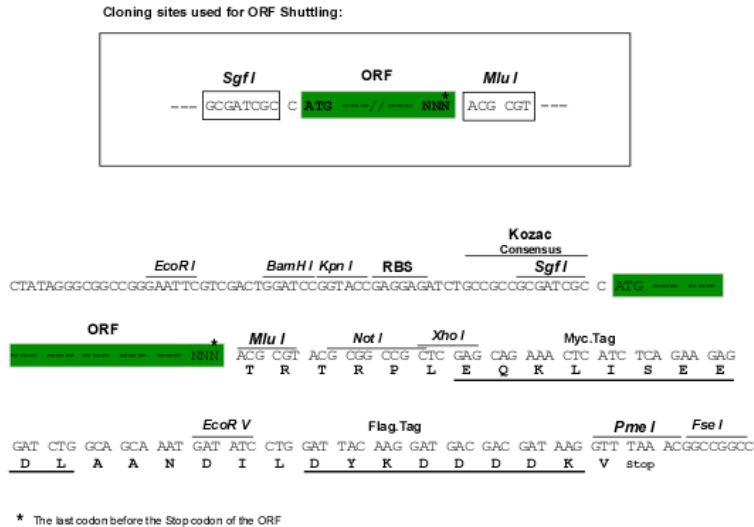
Chromatograms:

https://cdn.origene.com/chromatograms/mk6199_f10.zip

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_000478.5](#)

RefSeq Size: 2606 bp

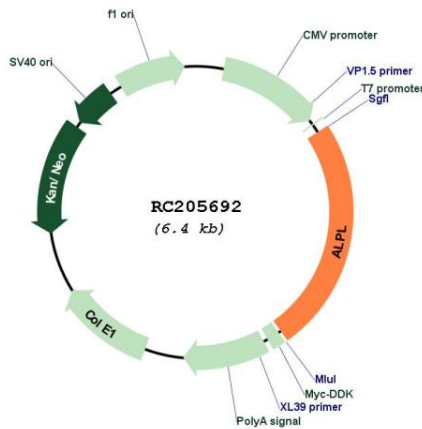
RefSeq ORF: 1575 bp

Locus ID: 249

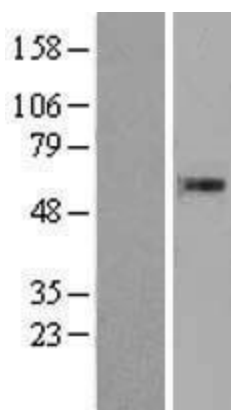
UniProt ID: [P05186](#)
Cytogenetics: 1p36.12
Domains: alk_phosphatase
Protein Families: Druggable Genome
Protein Pathways: Folate biosynthesis, Metabolic pathways
MW: 57.3 kDa

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]

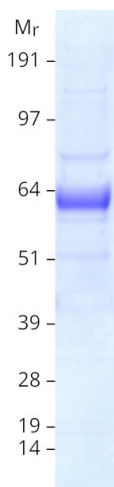
Product images:



Circular map for RC205692



Western blot validation of overexpression lysate (Cat# [LY426804]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC225898] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ALPL protein (Cat# [TP305692]). The protein was produced from HEK293T cells transfected with ALPL cDNA clone (Cat# RC205692) using MegaTran 2.0 (Cat# [TT210002]).