OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RC230101

Alkaline Phosphatase (ALPL) (NM_001177520) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Alkaline Phosphatase (ALPL) (NM_001177520) 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)

View online »

ORF Nucleotide Sequence:

>RC230101 representing NM_001177520
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCCTGGAGCTTCAGAAGCTCAACACCAACGTGGCTAAGAATGTCATCATGTTCCTGGGAGATGACGT
ACAACACCAATGCCCAGGTCCCTGACAGCGCCGGCACCGCCACCGCCTACCTGTGTGGGGTGAAGGCCAA
TGAGGGCACCGTGGGGGTAAGCGCAGCCACTGAGCGTTCCCGGTGCAACACCACCCAGGGGAACGAGGTC
ACCTCCATCCTGCGCTGGGCCAAGGACGCTGGGAAATCTGTGGGCATTGTGACCACCACGAGAGTGAACC
ATGCCACCCCCAGCGCCGCCTACGCCCACTCGGCTGACCGGGACTGGTACTCAGACAACGAGATGCCCCC
TGAGGCCTTGAGCCAGGGCTGTAAGGACATCGCCTACCAGCTCATGCATAACATCAGGGACATTGACGTG
ATCATGGGGGGTGGCCGGAAATACATGTACCCCAAGAATAAAACTGATGTGGAGTATGAGAGTGACGAGA
AAGCCAGGGGCACGAGGCTGGACGGCCTGGACCTCGTTGACACCTGGAAGAGCTTCAAACCGAGATACAA
GCACTCCCACTTCATCTGGAACCGCACGGAACTCCTGACCCTTGACCCCCACAATGTGGACTACCTATTG
GGTCTCTTCGAGCCAGGGGACATGCAGTACGAGCTGAACAGGAACAACGTGACGGACCCGTCACTCTCCG
AGATGGTGGTGGTGGCCATCCAGATCCTGCGGAAGAACCCCAAAGGCTTCTTCTTGCTGGTGGAAGGAGG
CAGAATTGACCACGGGCACCATGAAGGAAAAGCCAAGCAGGCCCTGCATGAGGCGGTGGAGATGGACCGG
GCCATCGGGCAGGCAGGCAGCTTGACCTCCTCGGAAGACACTCTGACCGTGGTCACTGCGGACCATTCCC
ACGTCTTCACATTTGGTGGATACACCCCCCGTGGCAACTCTATCTTTGGTCTGGCCCCCATGCTGAGTGA
CACAGACAAGAAGCCCTTCACTGCCATCCTGTATGGCAATGGGCCTGGCTACAAGGTGGTGGGCGGTGAA
CGAGAGAATGTCTCCATGGTGGACTATGCTCACAACAACTACCAGGCGCAGTCTGCTGTGCCCCTGCGCC
ACGAGACCCACGGCGGGGAGGACGTGGCCGTCTTCTCCAAGGGCCCCATGGCGCACCTGCTGCACGGCGT
CCACGAGCAGAACTACGTCCCCCACGTGATGGCGTATGCAGCCTGCATCGGGGCCAACCTCGGCCACTGT
GCTCCTGCCAGCTCGGCAGGCAGCCTTGCTGCAGGCCCCCTGCTGCTCGCGCTGGCCCTCTACCCCCTGA
GCGTCCTGTTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC230101 representing NM_001177520
Red=Cloning site Green=Tags(s)

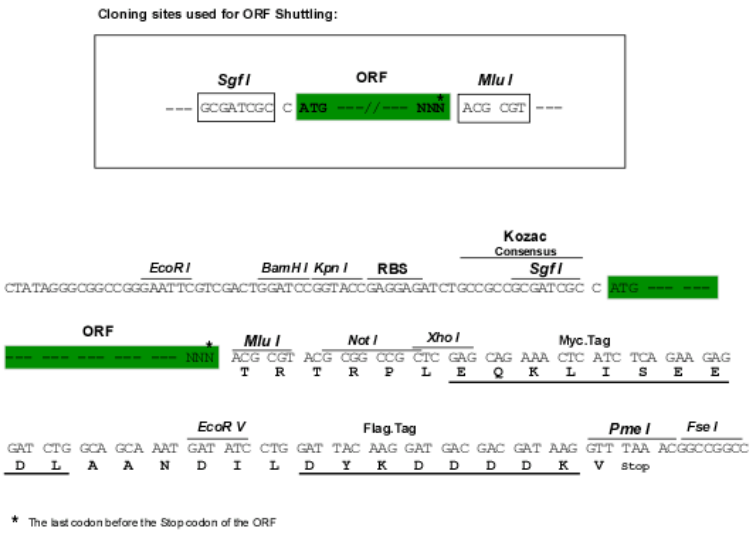
MPWSFRSSTPTWLRMSSCSWEMTYNTNAQVPDSAGTATAYLCGVKANEGTVGVSAATERSRCNTTQGNEV
TSILRWAKDAGKSVGIVTTTRVNHATPSAAYAHSADRDWYSDNEMPPEALSQGCKDIAYQLMHNIRDIDV
IMGGGRKYMYPKNKTDVEYESDEKARGTRLDGLDLVDTWKSFKPRYKHSHFIWNRTELLTLDPHNVDYLL
GLFEPGDMQYELNRNNVTDPSLSEMVVVAIQILRKNPKGFFLLVEGGRIDHGHHEGKAKQALHEAVEMDR
AIGQAGSLTSSEDTLTVVTADHSHVFTFGGYTPRGNSIFGLAPMLSDTDKKPFTAILYGNGPGYKVVGGE
RENVSMVDYAHNNYQAQSAVPLRHETHGGEDVAVFSKGPMAHLLHGVHEQNYVPHVMAYAACIGANLGHC
APASSAGSLAAGPLLLALALYPLSVLF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8060_f04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001177520

ORF Size: 1341 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_001177520.2, NP_001170991.1

RefSeq ORF: 1344 bp

Locus ID: 249

UniProt ID: P05186

Cytogenetics: 1p36.12

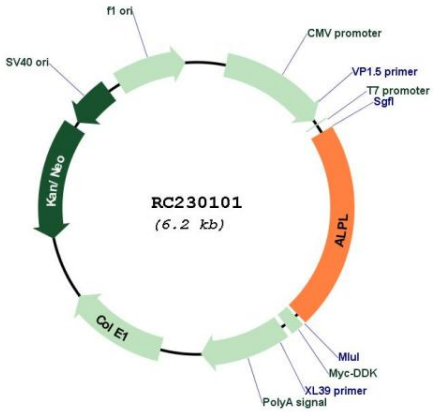
Protein Families: Druggable Genome

Protein Pathways: Folate biosynthesis, Metabolic pathways

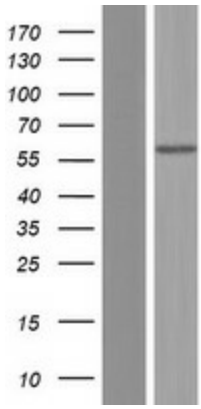
MW: 49.4 kDa

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 RC230101



Western blot validation of overexpression lysate (Cat# [LY433101]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC230101 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).