

## Product datasheet for **RG230101**

### 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:	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:**

>RG230101 representing NM\_001177520  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCCTGGAGCTTCAGAAGCTCAACACCAACGTGGCTAAGAATGTCATCATGTTCTGGGAGATGACGT  
 ACAACACCAATGCCAGGTCCCTGACAGCGCCGGCACCGCCACCGCTACCTGTGTGGGGTGAAGGCCAA  
 TGAGGGCACCGTGGGGTAAAGCGCAGCCACTGAGCGTTCCCGGTGCAACACCACCCAGGGGAACGAGGT  
 ACCTCCATCCTGCGCTGGGCCAAGGACGCTGGGAAATCTGTGGCATTGTGACCACCACGAGAGTGAACC  
 ATGCCACCCAGCGCCGCTACGCCACTCGGCTGACCGGGACTGGTACTCAGACAACGAGATGCCCCC  
 TGAGGCCCTTGAGCCAGGGCTGTAAGGACATCGCTACCAGCTCATGCATAACATCAGGGACATTGACGTG  
 ATCATGGGGGTGGCCGAAATACATGTACCCCAAGAATAAACTGATGTGGAGTATGAGAGTGACGAGA  
 AAGCCAGGGGACGAGGCTGGACGGCTGGACCTCGTTGACACCTGGAAGAGCTTCAAACCGAGATACAA  
 GCACTCCCACTTCTGGAACCGCACGGAACCTCTGACCCTTGACCCCAACAATGTGGACTACCTATTG  
 GGTCTCTTCGAGCCAGGGGACATGCAGTACGAGCTGAACAGGAACAACGTGACGGACCCGCTCACTCTCCG  
 AGATGGTGGTGGTGGCCATCCAGATCCTGCGGAAGAACCACCAAGGCTTCTTCTTCTGCTGGTGAAGGAGG  
 CAGAATTGACCACGGGCACCATGAAGGAAAAGCCAAGCAGGCCCTGCATGAGGCGGTGGAGATGGACCGG  
 GCCATCGGGCAGGCAGGCAGCTTACCTCCTCGGAAGACACTCTGACCGTGGTCACTGCGGACCATTTCC  
 ACGTCTTACATTTGGTGGATACACCCCGTGGCAACTATCTTTGGTCTGGCCCCATGCTGAGTGA  
 CACAGACAAGAAGCCCTTCACTGCCATCCTGTATGGCAATGGGCTGGCTACAAGGTGGTGGGCGGTGAA  
 CGAGAGAAATGTCTCCATGGTGGACTATGCTCACAACAACCTACCAGGCGCAGTCTGCTGTGCCCTGCGCC  
 ACGAGACCCACGGCGGGGAGGACGTGGCCGCTCTCTCAAGGGCCCCATGGCGCACCTGCTGCACGGCGT  
 CCACGAGCAGAACTACGTCCCCACGTGATGGCGTATGCAGCCTGCATCGGGGCCAACCTCGGCCACTGT  
 GCTCTGCCAGCTCGGCAGGCAGCCTTGTGCAGGCCCTGCTGCTCGCGCTGGCCCTTACCCCTGA  
 GCGTCCTGTTC

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG230101 representing NM\_001177520  
 Red=Cloning site Green=Tags(s)

MPWSFRSSTPTWLRMSSCSWEMTYNTNAQVPSAGTATAYLCGVKANEGTVGVSAATERSRCNTTQNEV  
 TSILRWAKDAGKSVGIVTTTRVNHATPSAAYAHSADRDWYSDNEMPEALSQGCKDIAYQLMHNIRDIDV  
 IMGGRKYMYPKNKTDVEYESDEKARGTRLDGLDLVDTWKSFKPRYKHSFIWNRTLLDLPNVDYLL  
 GLFEPGDMQYELNRNNTDPSLSEMVVVAIQILRKNPKGFLLVEGGRIDHGHHEGKAKQALHEAVEMDR  
 AIGQAGSLTSSDRTLTVVTADHSHVFTFGGYTPRGNSIFGLAPMLSDTDKPPFTAILYNGPGYKVVGGE  
 RENVMVDYAHNNYQAQSAVPLRHETHGGEDVAVFSKGPMAHLLHGVHEQNYVPHVMAYAACIGANLGH  
 APASSAGSLAAGPLLLALALYPLSVLF

**TRTRPLE** – GFP Tag – V

**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 Size:** 2325 bp

**RefSeq ORF:** 1344 bp

**Locus ID:** 249

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

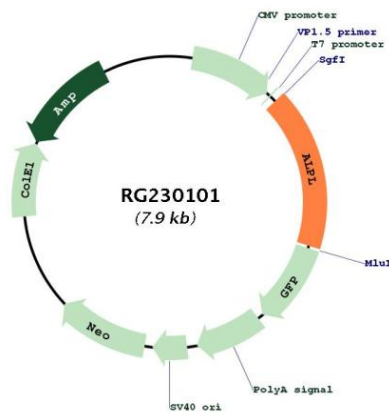
**Cytogenetics:** 1p36.12

**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 RG230101