

## Product datasheet for **SC107943**

### Alkaline Phosphatase (ALPL) (NM\_000478) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Alkaline Phosphatase (ALPL) (NM_000478) Human Untagged Clone
Tag:	Tag Free
Symbol:	Alkaline Phosphatase
Synonyms:	AP-TNAP; APTNAP; HOPS; HPPA; HPPC; HPPI; HPPO; TNALP; TNAP; TNSALP
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC107943 sequence for NM\_000478 edited (data generated by NextGen Sequencing)

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ATGATTTACCATTCTTAGTACTGGCCATTGGCACCTGCCTACTAACTCCTTAGTGCCA
GAGAAAGAGAAAGACCCCAAGTACTGGCGAGACCAAGCGCAAGAGACTGAAATATGCC
CTGGAGCTTCAGAAGCTCAACACCAACGTGGCTAAGAATGTCATCATGTTCTGGGAGAT
GGGATGGGTGTCTCCACAGTGACGGCTGCCCGCATCCTCAAGGGTCAGCTCCACCACAAC
CCTGGGAGGAGACCAGGCTGGAGATGGACAAGTCCCCTTCGTGGCCCTCTCCAAGACG
TACAACACCAATGCCAGGTCCCTGACAGCGCCGACCCGCCACCGCCTACCTGTGTGGG
GTGAAGGCCAATGAGGGCACCGTGGGGTAAGCGCAGCCACTGAGCGTTCCTGGTGAAC
ACCACCCAGGGGAACGAGGTCACCTCCATCCTGCGCTGGGCAAGGACGCTGGGAAATCT
GTGGGCATTGTGACCACCAGAGAGTGAACCATGCCACCCCGAGCGCCCTACGCCAC
TCGGCTGACCGGGACTGGTACTCAGACAACGAGATGCCCCCTGAGGCCTTGAGCCAGGGC
TGTAAGGACATCGCTACCAGCTCATGCATAACATCAGGGACATTGACGTGATCATGGGG
GGTGGCCGAAAATACATGTACCCCAAGAATAAACTGATGTGGAGTATGAGAGTGACGAG
AAAGCCAGGGGCACGAGGCTGGACGGCTGGACCTCGTTGACACCTGGAAGAGCTTCAA
CCGAGATACAAGCACTCCCACTTCATCTGGAACCGCACGGAACCTCTGACCTTGACCCC
CACAATGTGGACTACCTATTGGGTCTCTTCGAGCCAGGGGACATGCAGTACGAGCTGAAC
AGGAACAACGTGACGGACCCGCTACTCTCCGAGATGGTGGTGGTGGCCATCCAGATCCTG
CGGAAGAACCCCAAGGCTTCTTCTTGCTGGTGGAAAGGAGGAGCAATGACCACGGGCAC
CATGAAGGAAAAGCCAAGCAGGCCCTGCATGAGGCGGTGGAGATGGACCGGGCCATCGGG
CAGGCAGGCAGCTTGACCTCCTCGGAAGACACTTGACCGTGGTCACTGCCGACCATTC
CACGTCTTACATTTGGTGGATACACCCCGTGGCAACTCTATCTTTGGTCTGGCCCCC
ATGCTGAGTGACACAGACAAGAAGCCCTTCACTGCCATCCTGTATGGCAATGGGCCTGGC
TACAAGGTGGTGGCGGTGAACGAGAGAATGTCTCCATGGTGGACTATGCTCACAACAAC
TACCAGGCGCAGTCTGCTGTGCCCTGCGCCACGAGACCCACGGCGGGGAGGACGTGGCC
GTCTTCTCCAAGGGCCCCATGGCGCACCTGCTGCACGGCGTCCACGAGCAGAACTACGTC
CCCCACGTGATGGCGTATGCAGCCTGCATCGGGGCCAACCTCGGCCACTGTGCTCCTGCC
AGCTCGGCAGGCAGCCTTGTGTCAGGCCCTGCTGCTCGCGCTGGCCCTTACCCCTG
AGCGTCTGTTCTGA
    
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Clone variation with respect to NM\_000478.4

**5' Read Nucleotide Sequence:**

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>OriGene 5' read for NM_000478 unedited
CATTTTGTAAATACGACTCACTATAGGGCGGCGCAATTCGGCACGAGGGGGCAGCTGAG
AATGGCCCAGGNAAAGAACTATATTACCTTCAAAAAGAGAGGTACATGCGATGTTGAGG
TGGCATGAAGCTCAGTGGTGTATATTGGAATGAGTGAGTGACCATCCTGGAGCCTTCTT
GAAAGAGGATTGGAACATCAGTTAACATCTGACCACTGCCAGCCACCCCTCCCACCCA
CGTCGATTGCATCTCTGGGCTCCAGGGATAAAGCAGGTCTTGGGTGCACCATGATTTCA
CCATTCTTAGTACTGGCCATTGGCACCTGCCTTACTAACTCCTTAGTGCCAGAGAAAAGAG
AAAGACCCCAAGTACTGGCGAGACCAAGCGCAAGAGACTGAAATATGCCCTGGAGCTT
CAGAAGCTCAACACCAACGTGGCTAAGAATGTCATCATGTTCTGGGAGATGGGATGGGT
GTCTCCACAGTGACGGCTGCCCGCATCCTCAAGGGTCAGCTCCACCACAACCCCTGGGGAG
GAGACCAGGCTGGAGATGGACAAGTCCCCTTCGTGGCCCTCTCCAAGACGTACAACACC
AATGCCAGGTCCTGACAGCGCCGGCACCGCCACCGCTACCTGTGTGGGTGAAGGCC
AATGAGGGCACCGTGGGGTAAGCGCAGCCACTGAGCGTTCCTGGTGCAACACCACCCAG
GGGAACGAGGTACCTCCATCCTGCGCTNGGCCAAGGACGCTGGGAAATCTGTGGGCATT
GTGACCACCACGAGAGTGAACCATGCCACCCCGAGCGCCCTACGCCCACTCGGNTGAC
CGNACTGGTACTCAGACACGAGATGCCCCCTGTAGCCCTGAGCCAGGGCTGTTAAGACA
TCGCCTACAGCTCATGCATACATCAGGGACATGACGTGACTTGGGGGTGGCCGCAATAC
TGTACCCAGATAAACTATGT
    
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<b>3' Read Nucleotide Sequence:</b>	>OriGene 3' read for NM_000478 unedited NTTTTACTCTGGACCCGCGCCGCAATCTAGNGATCGGTTT TTTTTTTTTATTTGAAAAGTTTTATTTAAATGTTTTGGGTTCCCTTTTAAACCACCACCAA AAAAAAAAAAAAAAAAAATTTTTTTTGGCCTTCAAACAGGAAAGTCGCTTCAAAGAGGAGC TGGCGTGTGTGTTCAAAGCCCAGGAGTGTGAGCCCTGCCAGGTGGCTCTCCCGCCTGG GCCACGCTGGGTAGGATGGCCACCCAGGCACCGCTTCTGGGACCCTGGTGGTCTTGGAA GTGAGTGAGTGACCAAGGCCTTGTCTGAGGAAAAAGACCTCAACTCCCCTGAAGGAGGG CTGGGCCTGGGGACAGGGACATGAGCATTGTAGGGCCTGGGGGGTTCCAAGGTAAGGAA ATGGGAGTGGGAGGGTCAGGAAATGAACTGGGAGGGTCAAATCCAAAATGTTCCACGGA GGCTTCAGGGCCTCTGGGTCTGGAGAAATACGTTTCGCTAAAAAATAAAAGGCTTTGAAA ATGTCTGCAGTCTGACTCTCTGCCTGCCAAGAGAAATCTACCCTGTTGGCCAAGGGCA NCGGGGAGGGAGCAAAGGCTGGAGGCCAAAAGTGGGTTTGGCCCTTGGGGAAGATTCCAN AGGGGAGCGAGGTGGCGGCAAACCTTTGGTTTCTGGGTCCCCTTTCTTGCAGTTGCAGA GGCTTGAGAGGCCCCACCTNCTGCCCTTGGAGGGGGGCTGCCGTGTGNGGAAAGT GGCATCTGTACGGGCTTGTGGGTGCCGGGCCCTGNGCCCTCAAACAGGACGCTCAGG GGNTANAGGCCANCGCGAGCNCAGGGGGCCTGCANCAAGGCTGCTGCCGAGCTGCAGAAC ACATGGNCCGAGTTGCCCGAGCAGCTGATCCCATCCTGGGGACACTATTTTGC
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_000478
<b>Insert Size:</b>	2500 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">NM_000478.2</a> , <a href="#">NP_000469.2</a>
<b>RefSeq Size:</b>	2580 bp
<b>RefSeq ORF:</b>	1575 bp
<b>Locus ID:</b>	249
<b>UniProt ID:</b>	<a href="#">P05186</a>
<b>Cytogenetics:</b>	1p36.12
<b>Domains:</b>	alk_phosphatase
<b>Protein Families:</b>	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]  
Transcript Variant: This variant (1) encodes the longest isoform (1).