

Product datasheet for **RC224178**

Alkaline Phosphatase (ALPI) (NM_001631) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Alkaline Phosphatase (ALPI) (NM_001631) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Alkaline Phosphatase
Synonyms:	IAP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC224178 representing NM_001631
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGACGGGGCCCTGGGTGCTGCTGCTGCTGGCCCTGAGGCTACAGCTCTCCCTGGGCGTCATCCCAGCTG
 AGGAGGAGAACC CGCCTTCTGGAACCGCCAGGCAGCTGAGGCCCTGGATGCTGCCAAGAAGCTGCAGCC
 CATCCAGAAGGTCGCAAGAACCTCATCTCTTCTGGGCGATGGGTTGGGGGTGCCACGGTGACAGCC
 ACCAGGATCTAAAGGGGCGAAGAATGGCAAACCTGGGCGCTGAGACGCCCTGGCCATGGACCGTTCC
 CATACCTGGCTCTGTCCAAGACATAAATGTGGACAGACAGGTGCCAGACAGCGCAGCCACAGCCACGGC
 CTACCTGTGCGGGGTCAAGGCCAATCCAGACCATCGGCTTGAGTGCAGCCGCCGCTTTAACAGTGC
 AACACGACACGCGCAATGAGGTCATCTCCGTGATGAACCGGCCAAGCAAGCAGGAAAGTCAGTAGGAG
 TGGTGACCACACAGGGTGCAGCACGCCTCGCCAGCCGGCACCTACGCACACACAGTGAACCGCAACTG
 TACTCAGATGCTGACATGCCTGCCTCAGCCCGCAGGAGGGGTGCCAGGACATCGCCACTCAGCTCATC
 TCCAACATGGACATTGACGTGATCCTTGGCGGAGGCCGAAGTACATGTTTCCCATGGGGACCCAGACC
 CTGAGTACCCAGCTGATGCCAGCCAGAATGGAATCAGGCTGGACGGGAAGAACCTGGTGCAGGAATGGCT
 GGCAAAGCACCAGGGTGCCTGGTATGTGTGAACCGCACTGAGCTCATGCAGGCGTCCCTGGACAGTCT
 GTGACCCATCTCATGGGCTCTTTGAGCCCGGAGACACGAAATATGAGATCCACCAGACCCACACTGG
 ACCCTCCTGATGGAGATGACAGAGGCTGCCCTGCGCTGCTGAGCAGGAACCCCGCGGCTTCTACCT
 CTTTGTGGAGGGCGCCGCATCGACCATGGTTCATCATGAGGGTGTGGCTTACCAGGCACTCACTGAGGGC
 GTCATGTTGACGACGCCATTGAGAGGGCGGCCAGCTCACCAGCAGGAGGACACGCTGACCCTCGTCA
 CCGCTGACCACTCCCATGCTTCTCCTTTGGTGGCTACACCTTGGCAGGGAGCTCCATCTCGGGTTGGC
 CCCAGCAAGGCTCAGGACAGCAAAGCCTACACGTCCATCCTGTACGGCAATGGCCCGGGCTACGTGTTT
 AACTCAGGCGTGCAGCAGAGCTGAATGAGAGCGAGAGCGGGAGCCCGATTACCAGCAGCAGGCGCGG
 TGCCCTGTGTCGAGACCCACGGAGCGAAGACGTGGCGGTGTTTGCAGCGGGCCGACGGCGCACCT
 GGTGCATGGTGTGAGGAGCAGAGCTTCGTAGCGCATGTCATGGCCTTCGCTGCCTGTCTGGAGCCCTAC
 ACGGCTGCGACCTGGCGCTCCCGCTGCACCACCGACCGCGCACCCAGTTGCCGCGTCTGCTGCCAC
 TGCTGGCCGGACCTGCTGCTGCTGGGGCGTCCGCTGCTCCC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC224178 representing NM_001631
 Red=Cloning site Green=Tags(s)

MQGPWVLLLLLGLRLQLSLGVIPAEENPAFWNRQAAEALDAKKLQPIQKVAKNLIIFLDGLGVPTVTA
 TRILKQKNGKLGPEPLAMDRFPYLALSKTYNVDRQVPDSAATATAYLCGVKANFQITGLSAAARFNQC
 NTRGNEVISVMNRAKQAGKSVGVTTRVQHASPAGTYAHTVNRNWYSDAMPASARQEGCQDIATQLI
 SNMDIDVILGGGRKYMFPMPGTPDPEYPADASQNGIRLDGKNLVQEWLAKHQGAWYVWNRTELMQASLDQS
 VTHLMGLFEPGDTKYEIHRDPTLDPSPMEMTEAALRLLSRNPRGFYLFVEGGRIDHGHHEGVAYQALTEA
 VMFDDAIERAGQLTSEEDTLTLVTADHSHVFSFGGYTLRGSSIFGLAPSKAQDSKAYTSILYGNPGYVF
 NSGVRPDVNESESGSPDYQQAAVPLSSETHGGEDVAVFARGPQAHLVHGVQEQSFVAHVMAFAACLEPY
 TACDLAPPACTTDAHPVAASLPLLAGTLLLLGASAAP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6102_b12.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001631

ORF Size: 1584 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_001631.5](#)

RefSeq Size: 2516 bp

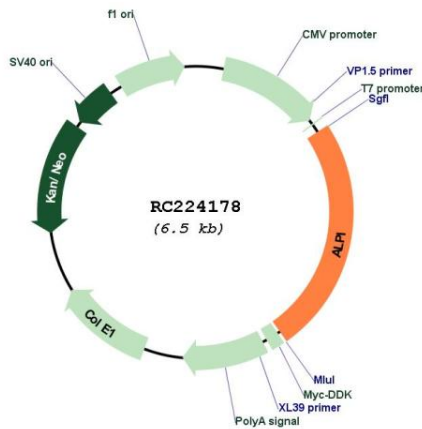
RefSeq ORF: 1587 bp

Locus ID: 248

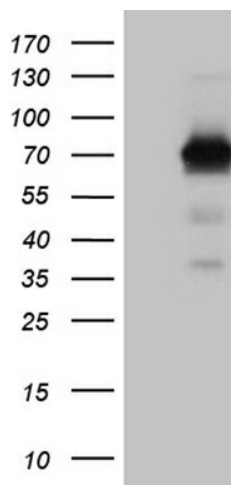
UniProt ID: [P09923](#)
Cytogenetics: 2q37.1
Protein Families: Druggable Genome
Protein Pathways: Folate biosynthesis, Metabolic pathways
MW: 56.81 kDa

Gene Summary: There are at least four distinct but related alkaline phosphatases: intestinal, placental, placental-like, and liver/bone/kidney (tissue non-specific). The intestinal alkaline phosphatase gene encodes a digestive brush-border enzyme. This enzyme is a component of the gut mucosal defense system and is thought to function in the detoxification of lipopolysaccharide, and in the prevention of bacterial translocation in the gut. [provided by RefSeq, Dec 2014]

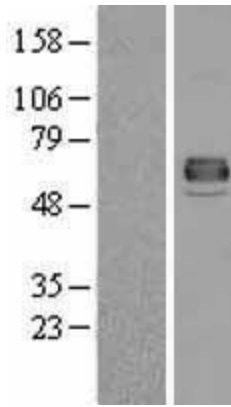
Product images:



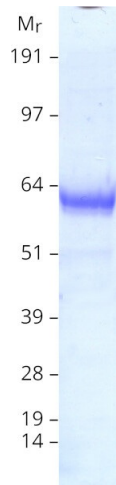
Circular map for RC224178



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ALPI (Cat# RC224178, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ALPI (Cat# [TA809178])(1:2000). Positive lysates [LY400612] (100ug) and [LC400612] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400612]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC224178 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ALPI protein (Cat# [TP324178]). The protein was produced from HEK293T cells transfected with ALPI cDNA clone (Cat# RC224178) using MegaTran 2.0 (Cat# [TT210002]).