

Product datasheet for **RG210504**

Alkaline Phosphatase (ALPP) (NM_001632) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Alkaline Phosphatase (ALPP) (NM_001632) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Alkaline Phosphatase
Synonyms:	ALP; ALPI; IAP; PALP; PLAP; PLAP-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RG210504 representing NM_001632
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCTGGGGCCCTGCATGCTGCTGCTGCTGCTGCTGCTGGCCTGAGGCTACAGCTCCTCGTGGCATCA
 TCCAGTTGAGGAGGAGAACCAGACTTCTGGAACCGCGAGGCAGCCAGGCCCTGGGTGCCCAAGAA
 GCTGCAGCCTGCACAGACAGCCGAAGAACCTCATCATCTTCTGGCGATGGGATGGGGTGTCTACG
 GTGACAGCTGCCAGGATCCTAAAAGGGCAGAAGAAGGACAACTGGGGCCTGAGATACCCCTGGCCATGG
 ACCGCTTCCCATATGTGGCTCTGTCCAAGACATAACAATGTAGACAAACATGTGCCAGACAGTGGAGCCAC
 AGCCACGGCTACCTGTGCGGGTCAAGGGCAACTTCCAGACCATTGGCTTGAGTGCAGCCGCCCTTT
 AACCAAGTCAACACGACACGCGCAACGAGGTATCTCCGTGATGAATCGGGCAAGAAAGCAGGGAAGT
 CAGTGGGAGTGGTAACCACACAGGAGTGCAGCAGCCTCGCCAGCCGGCACCTACGCCACACGGTGAA
 CCGCAACTGGTACTCGGACGCCGACGTGCCTGCCTCCGCCGCGCAGGAGGGTGCCAGGACATCGCTACG
 CAGCTCATCTCCAACATGGACATTGACGTGATCCTAGGTGGAGGCCGAAAGTACATGTTTCGCATGGGAA
 CCCCAGACCCTGAGTACCAGATGACTACAGCCAAGGTGGGACCAGGCTGGACGGGAAGAATCTGGTGCA
 GGAATGGCTGGCAAGCGCCAGGGTGCCTGGTATGTGTGGAACCGCACTGAGCTCATGCAGGCTTCCCTG
 GACCCGCTGTGACCCATCTCATGGGTCTCTTTGAGCCTGGAGACATGAAATACGAGATCCACCGAGACT
 CCACACTGGACCCTCCCTGATGGAGATGACAGAGGCTGCCCTGCGCCTGCTGAGCAGGAACCCCGCGG
 CTTCTTCTCTTCGTGGAGGGTGGTCGCATCGACCATGGTATCATGAAAGCAGGGCTTACCGGGCACTG
 ACTGAGACGATCATGTTGACGACGCCATTGAGAGGGCGGGCCAGCTCACCAGCGAGGAGGACACGCTGA
 GCCTCGTCACTGCCGACCACTCCACGTCTTCTCCTTCGAGGGTACCCCTGCGAGGGAGCTCCATCTT
 CGGGCTGGCCCTGGCAAGGCCCGGGACAGGAAGGCCTACACGGTCTCCTATACGAAACGGTCCAGGC
 TATGTGCTCAAGGACGGCGCCCGCGGATGTTACCGAGAGCGAGAGCGGGAGCCCGAGTATCGGCAGC
 AGTCAGCAGTGGCCCTGGACGAAGAGACCCACGCAGGCGAGGACGTGGCGGTGTTGCGCGCGGCCCGCA
 GGCGCACCTGGTTCAGGCGTGCAGGAGCAGACCTTCATAGCGCACGTCATGGCCTTCGCCCGCTGCCTG
 GAGCCCTACACCGCTGCGACCTGGCGCCCCCGCGGCACCACCGACCGCGCACCCGGGGCGGTCCG
 TGGTCCCCGCTGCTTCTCTGCTGGCCGGACCCTGCTGCTGCTGGAGACGGCCACTGCTCCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG210504 representing NM_001632
 Red=Cloning site Green=Tags(s)

MLGPCMLLLLLLGLRLQLSLGIIPVEEENPDFWNREAAEALGAAKKLQPAQTAANKLIIFLDGDMGVST
 VTAARILKGQKDKLGPEIPLAMDRFPYVALSKTYNVDKHVPDSGATATAYLCGVKGNFQTIGLSAAARF
 NQCNTTRGNEVISVMNRKAKGKSVGVTTRVQHASPAGTYAHTVNRNWYSDADVPASARQEGCQDIAT
 QLI SNMDIDVILGGGRKYMFRMGTPDPEYDDYSQGGTRLDGKNLVQEWLAKRQGARYVWNRTELMQASL
 DPSVTHLMGLFEPGDMKYEIHRDSTLDPSLMEMTEAALRLLSRNPRGFFLFVEGGRIDHGHESRAYRAL
 TETIMFDDAIERAGQLTSEEDTSLVTDHSHVFSFGGYPLRGSSIFGLAPGKARDRKAYTVLLYNGPG
 YVLKDGARPDVTESESGSPEYRQSAVPLDEETHAGEDVAVFARGPQAHLVHGVQEQTFAHVMAFAACL
 EPYTACDLAPPAGTTDAHPGRSVVPALLPLLAGTLLLLLETATAP

TRTRPLE - GFP Tag - V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_001632

ORF Size: 1605 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_001632.3](#), [NP_001623.3](#)

RefSeq Size: 2883 bp

RefSeq ORF: 1608 bp

Locus ID: 250

UniProt ID: [P05187](#)

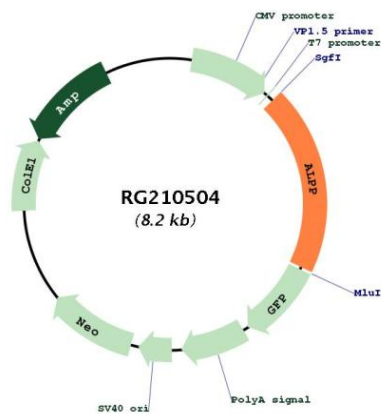
Cytogenetics: 2q37.1

Domains: alk_phosphatase

Protein Pathways: Folate biosynthesis, Metabolic pathways

Gene Summary: The protein encoded by this gene is an alkaline phosphatase, a metalloenzyme that catalyzes the hydrolysis of phosphoric acid monoesters. It belongs to a multigene family composed of four alkaline phosphatase isoenzymes. The enzyme functions as a homodimer and has a catalytic site containing one magnesium and two zinc ions, which are required for its enzymatic function. One of the main sources of this enzyme is the liver, and thus, it's one of several indicators of liver injury in different clinical conditions. In pregnant women, this protein is primarily expressed in placental and endometrial tissue, however, strong ectopic expression has been detected in ovarian adenocarcinoma, serous cystadenocarcinoma, and other ovarian cancer cells. [provided by RefSeq, Aug 2020]

Product images:



Circular map for RG210504