

Product datasheet for **RC204079**

AIPL1 (NM_014336) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	AIPL1 (NM_014336) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	AIPL1
Synonyms:	AIPL2; LCA4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC204079 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGATGCCGCTCTGCTCCTGAACGTGGAAGGGTCAAGAAAACCATTCTGCACGGGGCACGGGCGAGC
TCCCAAATTCATCACCGGATCCCGAGTGATCTTTCATTTCCGCACCATGAAATGTGATGAGGAGCGGAC
AGTCATTGACGACAGTCGGCAGGTGGGCCAGCCATGCACATCATCGAAACATGTTCAAGCTCGAG
GTCTGGGAGATCCTGCTACCTCCATGCGGGTGCACGAGGTGGCCGAGTCTGGTGCACACCATCCACA
CGGGGTCTACCCATCCTGTCCCGAGCCTGAGGCAGATGGCCAGGGCAAGGACCCACAGAGTGGCA
CGTGACACAGTGCGGGTGGCCAACATGTTCCGCTACCACACGCTGGGCTACGAGGACCTGGACGAGCTG
CAGAAGGAGCCTCAGCCTCTGGTCTTGTGATCGAGCTGCTGCAGTTGATGCCCGAGTGATTACCAGA
GGGAGACCTGGAACCTGAGCAATCATGAGAAGTGAAGGCGGTGCCCGTCTCCACGGAGAGGAAATCG
GCTCTTCAAGCTGGGCCGCTACGAGGAGGCTCTTCCAAGTACCAGGAGGCCATCATCTGCCTAAGGAAC
CTGCAGACCAAGGAGAAGCCGTGGGAGGTGCAGTGGTGAAGCTGGAGAAGATGATCAATACTCTGATCC
TCAACTACTGCCAGTGCCTGTGAAGAAGGAGGAGTACTATGAGGTGCTGGAGCACACAGTGATATTCT
CCGGCACCAAGGAGCATCGTGAAGGCTACTACGTGCGTGCCCGGGCTCACGCAGAGGTGTGGAATGAG
GCCGAGGCAAGGCGGACCTCCAGAAAGTGTGGAGCTGGAGCCGTCATGCAGAAGGCGGTGGCAGGG
AGCTGAGGCTGCTGGAGAACCAGTGGCGGAGAAGCAGGAGGAGGAGCGGCTGCGCTGCCGGAACATGCT
GAGCCAGGGTGCACGCAGCCTCCCGCAGAGCCACCCACAGAGCCACCCGACAGTCATCCACAGAGCCA
CCTGCAGAGCCACCCACAGCACCATCTGCAGAGCTGTCCGAGGGCCCCCTGCAGAGCCAGCCACAGAGC
CACCCCGTCCCCAGGGCACTCGCTGCAGCAC

ACGGTACGGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



Protein Sequence: >RC204079 protein sequence
Red=Cloning site Green=Tags(s)

MDAALLNVEGVKKTILHGGTGELPNFITGSRVIFHFRTMKCDEERTVIDDSRQVGQPMHIIIGNMFKLE
 VWEILLTSMRVHEVAEFWCDTIHTGVYPILSRSLRQMAQKDPTEWHVHTCGLANMFAYHTLGYEDLDEL
 QKEPQPLVFVIELLQVDAPSDYQRETWNLSNHEKMKAVPVLHGEGRNLFKLGRYEEASSKYQEAIICLRN
 LQTKKEPWEVQWLKLEKMINTLILNYCQCLLKKEEYVEVLEHTSDILRHHPGIVKAYVVRARAHAEVWNE
 AEAKADLQKVLELEPSMQKAVRRELRLLENRMAEKQEEERLRCRNMLSQGATQPPAEPTEPPAQSSTEP
 PAEPPTAPSAELSAGPPAEPATEPPPSPGHSLQH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6431_f10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_014336

ORF Size: 1152 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_014336.5](#)

RefSeq Size: 2990 bp

RefSeq ORF: 1155 bp

Locus ID: 23746

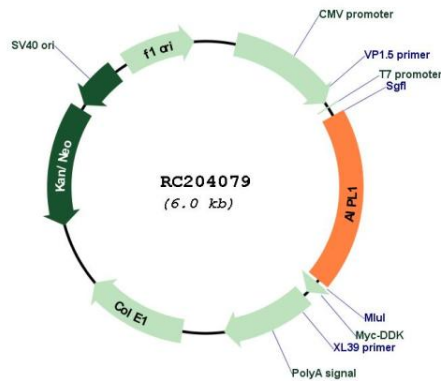
UniProt ID: [Q9NZN9](#)

Cytogenetics: 17p13.2

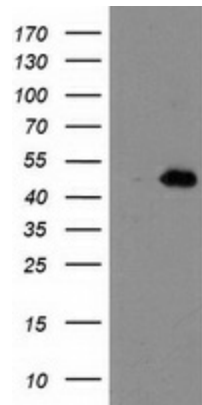
Protein Families: Druggable Genome

MW: 43.9 kDa

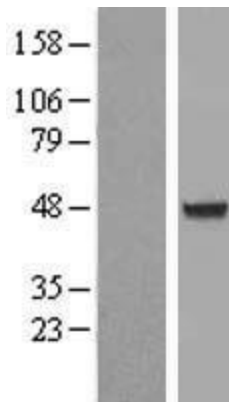
Gene Summary: Leber congenital amaurosis (LCA) is the most severe inherited retinopathy with the earliest age of onset and accounts for at least 5% of all inherited retinal diseases. Affected individuals are diagnosed at birth or in the first few months of life with nystagmus, severely impaired vision or blindness and an abnormal or flat electroretinogram. The photoreceptor/pineal-expressed gene, AIPL1, encoding aryl-hydrocarbon interacting protein-like 1, is located within the LCA4 candidate region. The encoded protein contains three tetratricopeptide motifs, consistent with chaperone or nuclear transport activity. Mutations in this gene may cause approximately 20% of recessive LCA. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jan 2014]

Product images:


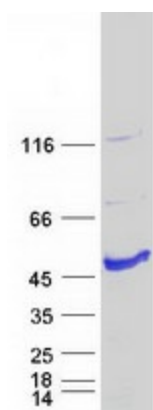
Circular map for RC204079



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY AIPL1 (Cat# RC204079, 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-AIPL1 (Cat# [TA503693]). Positive lysates [LY415353] (100ug) and [LC415353] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY415353]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204079 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified AIPL1 protein (Cat# [TP304079]). The protein was produced from HEK293T cells transfected with AIPL1 cDNA clone (Cat# RC204079) using MegaTran 2.0 (Cat# [TT210002]).