

Product datasheet for RC204924L3

OriGene Technologies, Inc.

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alpha Actinin (ACTN1) (NM_001102) Human Tagged Lenti ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: alpha Actinin (ACTN1) (NM_001102) Human Tagged Lenti ORF Clone

Tag: Myc-DDK

Symbol: alpha Actinin

Synonyms: BDPLT15

Mammalian Cell Puromycin

Selection:

Vector: pLenti-C-Myc-DDK-P2A-Puro (PS100092)

E. coli Selection: Chloramphenicol (34 ug/mL)

ORF Nucleotide The ORF insert of this clone

Sequence:

The ORF insert of this clone is exactly the same as(RC204924).

Restriction Sites: Sgfl-Mlul

Cloning Scheme:





st The last codon before the Stop codon of the ORF.

ACCN: NM_001102

ORF Size: 2676 bp



alpha Actinin (ACTN1) (NM_001102) Human Tagged Lenti ORF Clone - RC204924L3

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: <u>NM 001102.2</u>

RefSeq Size: 3743 bp **RefSeq ORF:** 2679 bp

Locus ID: 87

 UniProt ID:
 P12814

 Cytogenetics:
 14q22-q24

Domains: CH, spectrin, EFh

Protein Families: Druggable Genome, ES Cell Differentiation/IPS

Protein Pathways: Adherens junction, Arrhythmogenic right ventricular cardiomyopathy (ARVC), Focal adhesion,

Leukocyte transendothelial migration, Regulation of actin cytoskeleton, Systemic lupus

erythematosus, Tight junction

MW: 103.1 kDa

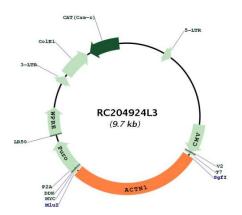
Gene Summary: Alpha actinins belong to the spectrin gene superfamily which represents a diverse group of

cytoskeletal proteins, including the alpha and beta spectrins and dystrophins. Alpha actinin is an actin-binding protein with multiple roles in different cell types. In nonmuscle cells, the cytoskeletal isoform is found along microfilament bundles and adherens-type junctions, where it is involved in binding actin to the membrane. In contrast, skeletal, cardiac, and smooth muscle isoforms are localized to the Z-disc and analogous dense bodies, where they help anchor the myofibrillar actin filaments. This gene encodes a nonmuscle, cytoskeletal, alpha actinin isoform and maps to the same site as the structurally similar erythroid beta spectrin gene. Three transcript variants encoding different isoforms have been found for this

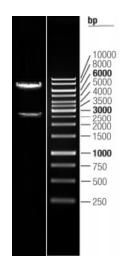
gene. [provided by RefSeq, Jul 2008]



Product images:



Circular map for RC204924L3



Double digestion of RC204924L3 using Sgfl and Mlul $\,$