

## Product datasheet for **RC223159L3V**

### **P5CS (ALDH18A1) (NM\_001017423) Human Tagged ORF Clone Lentiviral Particle**

#### **Product data:**

Product Type:	Lentiviral Particles
Product Name:	P5CS (ALDH18A1) (NM_001017423) Human Tagged ORF Clone Lentiviral Particle
Symbol:	P5CS
Synonyms:	ADCL3; ARCL3A; GSAS; P5CS; PYCS; SPG9; SPG9A; SPG9B
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-Myc-DDK-P2A-Puro (PS100092)
Tag:	Myc-DDK
ACCN:	NM_001017423
ORF Size:	2379 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC223159).
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. <a href="#">More info</a>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	<a href="#">NM_001017423.1</a>
RefSeq Size:	3464 bp
RefSeq ORF:	2382 bp
Locus ID:	5832
UniProt ID:	<a href="#">P54886</a>
Cytogenetics:	10q24.1
Protein Families:	Druggable Genome
Protein Pathways:	Arginine and proline metabolism, Metabolic pathways



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**MW:** 87.1 kDa

**Gene Summary:** This gene is a member of the aldehyde dehydrogenase family and encodes a bifunctional ATP- and NADPH-dependent mitochondrial enzyme with both gamma-glutamyl kinase and gamma-glutamyl phosphate reductase activities. The encoded protein catalyzes the reduction of glutamate to delta1-pyrroline-5-carboxylate, a critical step in the de novo biosynthesis of proline, ornithine and arginine. Mutations in this gene lead to hyperammonemia, hypoornithinemia, hypocitrullinemia, hypoargininemia and hypoprolinemia and may be associated with neurodegeneration, cataracts and connective tissue diseases. Alternatively spliced transcript variants, encoding different isoforms, have been described for this gene. [provided by RefSeq, Jul 2008]