

## Product datasheet for RC204903L4

#### OriGene Technologies, Inc.

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## ADH5 (NM\_000671) Human Tagged Lenti ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

**Product Name:** ADH5 (NM\_000671) Human Tagged Lenti ORF Clone

Tag: mGFP Symbol: ADH5

Synonyms: ADH-3; ADHX; AMEDS; BMFS7; FALDH; GSH-FDH; GSNOR; HEL-S-60p

Mammalian Cell Puromycin

Selection:

**Vector:** pLenti-C-mGFP-P2A-Puro (PS100093)

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(RC204903).

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_000671

ORF Size: 1122 bp

### ADH5 (NM\_000671) Human Tagged Lenti ORF Clone - RC204903L4

**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 000671.3</u>

RefSeq Size: 2652 bp RefSeq ORF: 1125 bp

Locus ID: 128

UniProt ID: P11766
Cytogenetics: 4q23

**Domains:** ADH zinc N

**Protein Families:** Druggable Genome

Protein Pathways: Drug metabolism - cytochrome P450, Fatty acid metabolism, Glycolysis / Gluconeogenesis,

Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Methane metabolism,

Retinol metabolism, Tyrosine metabolism

MW: 39.7 kDa

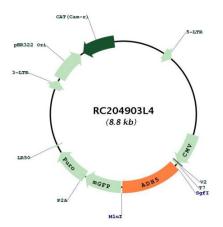
**Gene Summary:** This gene encodes a member of the alcohol dehydrogenase family. Members of this family

metabolize a wide variety of substrates, including ethanol, retinol, other aliphatic alcohols, hydroxysteroids, and lipid peroxidation products. The encoded protein forms a homodimer. It has virtually no activity for ethanol oxidation, but exhibits high activity for oxidation of long-chain primary alcohols and for oxidation of S-hydroxymethyl-glutathione, a spontaneous adduct between formaldehyde and glutathione. This enzyme is an important component of cellular metabolism for the elimination of formaldehyde, a potent irritant and sensitizing agent that causes lacrymation, rhinitis, pharyngitis, and contact dermatitis. The human genome contains several non-transcribed pseudogenes related to this gene. [provided by

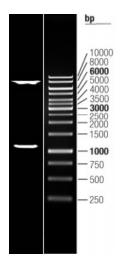
RefSeq, Oct 2008]



# **Product images:**



Circular map for RC204903L4



Double digestion of RC204903L4 using Sgfl and Mlul