

## Product datasheet for **SC328628**

### ADH7 (NM\_001166504) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ADH7 (NM_001166504) Human Untagged Clone
Tag:	Tag Free
Symbol:	ADH7
Synonyms:	ADH4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001166504, the custom clone sequence may differ by one or more nucleotides

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ATGAAATGCTTGGTGAGCAGGCATACAGTGAGGGAAACACTGGATATGGTGTTTCAGAGAATGTCAGTGG
AAGCAGGGGTTATTAATGCAAAGCAGCTGTGCTTTGGGAGCAGAAGCAACCTTCTCCATTGAGGAAAT
AGAAGTTGCCCAACAAAGACTAAAGAAGTTCGCATTAAGATTTGGCCACAGGAATCTGTCGCACAGAT
GACCATGTGATAAAAGGAACAATGGTGTCCAAGTTCCAGTGATTGTGGGACATGAGGCAACTGGGATTG
TAGAGAGCATTGGAGAAGGAGTGACTACAGTGAAACCAGGTGACAAAGTCATCCCTCTCTTTCTGCCACA
ATGTAGAGAATGCAATGCTTGTGCAACCCAGATGGCAACCTTTCATTAGGAGCGATATTACTGGTCGT
GGAGTACTGGCTGATGGCACCACAGATTTACATGCAAGGGCAAACCCAGTCCACCCTTTCATGAACACCA
GTACATTTACCGAGTACACAGTGGTGGATGAATCTTCTGTGCTAAGATTGATGATGCAGCTCCTCCTGA
GAAAGTCTGTTAATTGGCTGTGGGTTTTCCACTGGATATGGCGCTGCTGTTAAAACCTGGCAAGGTCAAA
CCTGGTCCACTTGCGTCGTCTTTGGCCTGGGAGGAGTTGGCCTGTGAGTCATCATGGGCTGTAAGTCAG
CTGGTGATCTAGGATCATTGGGATTGACCTCAACAAAGACAAATTTGAGAAGGCCATGGCTGTAGGTGC
CACTGAGTGTATCAGTCCCAAGGACTCTACAAACCCATCAGTGAGGTGCTGTGAGAAATGACAGGCAAC
AACGTGGGATACACCTTTGAAGTTATTGGGCATCTTGAACCATGATTGATGCCCTGGCATCCTGCCACA
TGAACATGGGACCAGCGTGGTTGTAGGAGTTCCTCCATCAGCCAAGATGCTCACCTATGACCCGATGTT
GCTCTTCACTGGACGCACATGGAAGGGATGTGTCTTTGGAGTTTGAAGCAGAGATGATGTCCCAAAA
CTAGTGACTGAGTTCCTGGCAAAGAAATTTGACCTGGACCAAGTTGATAACTCATGTTTTACCATTTAAAA
AAATCAGTGAAGGATTTGAGCTGCTCAATTCAGGACAAAGCATTGCAACGGTCTGACGTTTTGA
```

Restriction Sites:	Please inquire
ACCN:	NM_001166504



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**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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\\_001166504.1](#), [NP\\_001159976.1](#)

**RefSeq Size:** 2120 bp

**RefSeq ORF:** 1185 bp

**Locus ID:** 131

**UniProt ID:** [P40394](#)

**Cytogenetics:** 4q23

**Protein Families:** Druggable Genome

**Protein Pathways:** Drug metabolism - cytochrome P450, Fatty acid metabolism, Glycolysis / Gluconeogenesis, Metabolic pathways, Metabolism of xenobiotics by cytochrome P450, Retinol metabolism, Tyrosine metabolism

**Gene Summary:**

This gene encodes class IV alcohol dehydrogenase 7 mu or sigma subunit, which is 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 enzyme encoded by this gene is inefficient in ethanol oxidation, but is the most active as a retinol dehydrogenase; thus it may participate in the synthesis of retinoic acid, a hormone important for cellular differentiation. The expression of this gene is much more abundant in stomach than liver, thus differing from the other known gene family members. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2009]

Transcript Variant: This variant (1) represents the shorter transcript but encodes the longer isoform (1).