

Product datasheet for **RG215367**

Alcohol Dehydrogenase (ADH1A) (NM_000667) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Alcohol Dehydrogenase (ADH1A) (NM_000667) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Alcohol Dehydrogenase
Synonyms:	ADH1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG215367 representing NM_000667. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTT TAGTGAACCGTCAGAATTTTGT AATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCC GCGATCGCC
ATGAGCACAGCAGGAAAAGTAATCAAATGCAAAGCAGCTGTGCTATGGGAGTTAAAGAAACCCCTTTTCC
ATTGAGGAGGTAGAGTTGCACCTCCTAAGGCTCATGAAGTTCGCATTAAGATGGTGGCTGCAGGAATC
TGTCGTT CAGATGAGCATGTGGTTAGTGGCAACCTGGTGACCCCTTCTGTGATTTTAGGCCATGAG
GCAGCCGCATCGTGAAAGTGTGGAGAAGGGGTGACTACAGTCAAACCAGGTGATAAAGTCATCCCG
CTCTTTACTCCTCAGTGTGAAAATGCAGAATTTGTAAAAACCCAGAAAGCAACTACTGCTTGAAAAAT
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CACCACCTCGTCGGCGTCAGCACCTTCTCCAGTACACGGTGGTGGATGAGAATGCAAGTGGCCAAAATT
GATGCAGCCTCGCCCCTGGAGAAAGTCTGCCTCATTGGCTGTGGATTTTCGACTGTTATGGGTCTGCA
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ATGGCTTCCCTGTTATGTTGTCATGAGGCATGTGGCACAAGTGTATTGTAGGGGTACCTCCTGATTCC
CAGAACCCTCAATAAACCCCTATGCTGCTACTGACTGGACGCACGTGAAAGGAGCTATTTTGGAGGC
TTTAAGAGTAAAGAATCTGTCCCAAACCTGTGGCTGACTTTATGGCTAAGAAATTTTCACTGGATGCA
TTAATAACAAATATTTTACCTTTTGAAAAATAAATGAAGGATTTGACCTGCTTCGCTCTGGAAAGAGT
ATCCGTACCATTCTGATGTTT
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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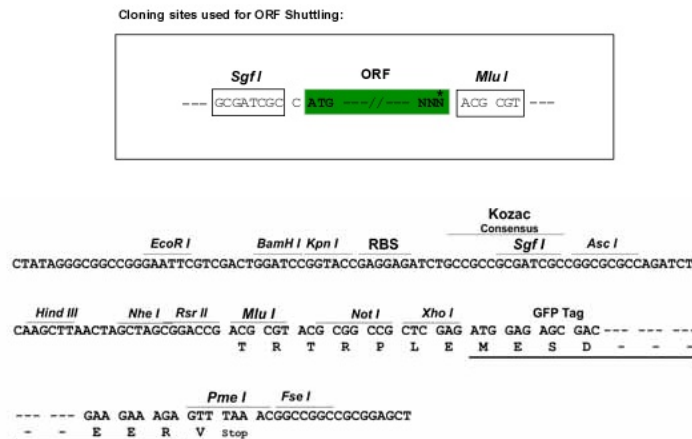
[View online >](#)

Protein Sequence: >Peptide sequence encoded by RG215367
 Blue=ORF Red=Cloning site Green=Tag(s)

MSTAGKVIKCKAAVLWELKKPFSIEEVEVAPPKAHEVRIKMAAGICRSDEHVVSGLNVTPLPVILGHE
 AAGIVESVGEVTTVKPGDKVIPLFTPQCGKCRICKNPESNYCLKNDLGNPRGTLQDGRRTCSGKPI
 HHFVGVSTFSQYTVVDENAVAKIDAASPLEKVCLIGCGFSTGYGSVAVKAVKVTGSTCAVFLGGVGLS
 VVMGCKAAGAARI IAVDINKDKFAKAKELGATECINPQDYKKPIQEVLKEMTDGGVDF SFEVIGRLDTM
 MASLLCCHEACGTSVIVGVPDSSQNL SINPMLLLTGRTWKGAIFGGFKSKESVPKLVADFMKKFSLDA
 LITNILPFEKINEGFDLLRSGKSRTILMF
 TRTRPLEMESDEGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
 MGYGFYHFGTYPSTYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
 SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000667

ORF Size: 1125 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 Size: 1456 bp

RefSeq ORF: 1128 bp

Locus ID: 124

UniProt ID: [P07327](#)

Cytogenetics: 4q23

Domains: ADH_zinc_N

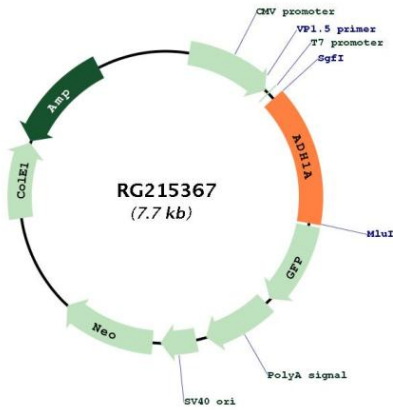
Protein Families: Druggable Genome

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

MW: 39.9 kDa

Gene Summary: This gene encodes a member of the alcohol dehydrogenase family. The encoded protein is the alpha subunit of class I alcohol dehydrogenase, which consists of several homo- and heterodimers of alpha, beta and gamma subunits. Alcohol dehydrogenases catalyze the oxidation of alcohols to aldehydes. This gene is active in the liver in early fetal life but only weakly active in adult liver. This gene is found in a cluster with six additional alcohol dehydrogenase genes, including those encoding the beta and gamma subunits, on the long arm of chromosome 4. Mutations in this gene may contribute to variation in certain personality traits and substance dependence. [provided by RefSeq, Nov 2010]

Product images:



Circular map for RG215367