

Product datasheet for **RG228880**

S adenosylhomocysteine hydrolase (AHCY) (NM_001161766) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	S adenosylhomocysteine hydrolase (AHCY) (NM_001161766) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	AHCY
Synonyms:	adoHcyase; SAHH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG228880 representing NM_001161766 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTCTGACAACTGCCCTACAAAGTCGCCGACATCGGCCTGGCTGCCTGGGGACGCAAGGCCCTGGACA
TTGCTGAGAACGAGATGCCGGCCTGATGCGTATGCGGGAGCGGTA
CGCCCGCATCGTGGCTGCCTGCACATGACCGTGGAGACGGCCGTCCTCATTGAGACCCTCGTACCCTG
GGTCTGAGGTGCAGTGGTCCAGCTGCAACATCTTCTCCACCCAGGACCATGCGGCGCTGCCATTGCCA
AGGCTGGCATTCCGGTGTATGCCTGGAAGGGCGAAACGGACGAGGAGTACCTGTGGTGCATTGAGCAGAC
CCTGTACTTCAAGGACGGGCCCTCAACATGATTCTGGACGACGGGGCGACCTACCAACCTCATCCAC
ACCAAGTACCCGACGCTTCTGCCAGGCATCCGAGGCATCTCTGAGGAGACCAGACTGGGGTCCACAACC
TCTACAAGATGATGGCCAATGGGATCCTCAAGGTGCCTGCCATCAATGTCAATGACTCCGTACCAAGAG
CAAGTTTGACAACCTCTATGGCTGCCGGGAGTCCCTCATAGATGGCATCAAGCGGCCACAGATGTGATG
ATTGCCGGCAAGGTAGCGGTGGTAGCAGGCTATGGTGTGTGGGCAAGGGCTGTGCCAGGCCCTGCGGG
GTTTCGGAGCCCGCTCATCACCGAGATTGACCCCATCAACGCACTGCAGGCTGCCATGGAGGGCTA
TGAGGTGACCACCATGGATGAGGCTGTGAGGAGGCAACATCTTTGTCAACCACAGGCTGTATTGAC
ATCATCCTTGCCCGCACTTTGAGCAGATGAAGGATGATGCCATTGTGTAACTTGGACACTTTGACG
TGGAGATCGATGTCAAGTGGCTCAACGAGAACCGCTGGAGAAGGTGAACATCAAGCCGACAGTGGACCG
GTATCGGTTGAAGAATGGGCGCCGCATCATCTGCTGGCCGAGGGTGGTCAACCTGGGTTGTGCC
ATGGGCCACCCAGCTTCGTGATGAGTAACTCCTTACCAACCAGGTGATGGCGCAGATCGAGCTGTGGA
CCCATCCAGACAAGTACCCGTTGGGTTTCATTTCCTGCCAAGAAGCTGGATGAGGCAGTGGCTGAAGC
CCACCTGGGCAAGCTGAATGTGAAGTTGACCAAGCTAACTGAGAAGCAAGCCAGTACCTGGGCATGTCC
TGTGATGGCCCTTCAAGCCGGTCACTACCGCTAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG228880 representing NM_001161766
 Red=Cloning site Green=Tags(s)

MSDKLPYKVADIGLAAWGRKALDIAENEMPLMRMRERYASASKPLKGARIAGCLHMTVETAVLIETLVTL
 GAEVQWSSCNIFSTQDHAAAAIAKAGIPVYAWKGETDEEYLWCIEQTLYFKDGPLNMILDDGGDLTNLIH
 TKYPQLLPGIRGISEETTTGVHNLKMMANGILKVPAINVNDVTKSKFDNLYGCRESLIDGKIRATDVM
 IAGKVAVVAGYGDVKGCAQALRGFGARVIITEIDPINALQAAMEGYEVTMTDEACQEGNIFVTTTGCID
 IILGRHFEQMKDDAIVCNIGHFDVEIDVKWLNENAVEKVNKPKQVDYRRLKNGRRIILLAEGRVLNLGCA
 MGHPSFVMSNSFTNQVMAQIELWTHPKYPVGVHFLPKKLDEAVAEHLGKLVNKLTKLTKQAQYLGMS
 CDGPFKPDHYRY

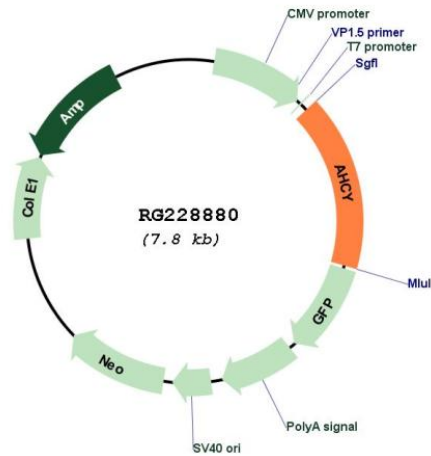
TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001161766

ORF Size:	1299 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:	<ol style="list-style-type: none">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_001161766.1 , NP_001155238.1
RefSeq Size:	2375 bp
RefSeq ORF:	1215 bp
Locus ID:	191
UniProt ID:	P23526
Cytogenetics:	20q11.22
Protein Families:	Druggable Genome
Protein Pathways:	Cysteine and methionine metabolism, Metabolic pathways, Selenoamino acid metabolism
Gene Summary:	S-adenosylhomocysteine hydrolase belongs to the adenosylhomocysteinase family. It catalyzes the reversible hydrolysis of S-adenosylhomocysteine (AdoHcy) to adenosine (Ado) and L-homocysteine (Hcy). Thus, it regulates the intracellular S-adenosylhomocysteine (SAH) concentration thought to be important for transmethylation reactions. Deficiency in this protein is one of the different causes of hypermethioninemia. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2009]