

Product datasheet for **RC200724**

S adenosylhomocysteine hydrolase (AHCY) (NM_000687) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	S adenosylhomocysteine hydrolase (AHCY) (NM_000687) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	S adenosylhomocysteine hydrolase
Synonyms:	adoHcyase; SAHH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC200724 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCCGCATCGCC

ATGTCTGACAAACTGCCCTACAAAGTCGCCGACATCGGCCTGGCTGCCTGGGGACGCAAGGCCCTGGACA
 TTGCTGAGAACGAGATGCCGGCCCTGATGCGTATGCGGGAGCGGTAATCGGCCTCCAAGCCACTGAAGGG
 CGCCCGCATCGCTGGCTGCCTGCACATGACCGTGGAGACGGCCGTCCTCATTGAGACCCTCGTCACCCTG
 GGTGCTGAGGTGCAGTGGTCCAGCTGCAACATCTTCTCCACCCAGGACCATGCGGCGGCTGCCATTGCCA
 AGGCTGGCATTCCGGTGTATGCCTGGAAGGGCGAAACGGACGAGGAGTACCTGTGGTGCATTGAGCAGAC
 CCTGTACTTCAAGGACGGGCCCTCAACATGATTCTGGACGACGGGGGCGACCTACCAACCTCATCCAC
 ACCAAGTACCCGAGCTTCTGCCAGGCATCCGAGGCATCTCTGAGGAGACCAGACTGGGGTCCACAACC
 TCTACAAGATGATGGCCAATGGGATCCTCAAGGTGCCTGCCATCAATGTCAATGACTCCGTCACCAAGAG
 CAAGTTTGACAACCTCTATGGCTGCCGGGAGTCCCTCATAGATGGCATCAAGCGGCCACAGATGTGATG
 ATTGCCGCAAGGTAGCGGTGGTAGCAGGCTATGGTGTGTGGGCAAGGGCTGTGCCAGGCCCTGCCGG
 GTTTCGGAGCCCGCTCATCATACCGAGATTGACCCCATCAACGCACTGCAGGCTGCCATTGGAGGGCTA
 TGAGGTGACCACCATGGATGAGGCTGTGAGGAGGCAACATCTTTGTCACCACCACAGGCTGTATTGAC
 ATCATCCTTGCCCGGCACTTTGAGCAGATGAAGGATGATGCCATTGTGTGTAACATTGGACACTTTGACG
 TGGAGATCGATGTCAAGTGGCTCAACGAGAACGCCGTGGAGAAGGTGAACATCAAGCCGCAAGGTGGACCG
 GTATCGGTTGAAGAAATGGGCGCCGATCATCTGCTGGCCGAGGGTCGGCTGGTCAACCTGGGTTGTGCC
 ATGGGCCACCCAGCTTCTGTGATGAGTAACTCCTTCAACCAACAGGTGATGGCGCAGATCGAGCTGTGGA
 CCCATCCAGACAAGTACCCGTTGGGGTTCATTTCTGCCAAGAAGCTGGATGAGGCAGTGGCTGAAGC
 CCACCTGGGCAAGCTGAATGTGAAGTTGACCAAGCTAAGTGAAGAAGCAAGCCAGTACCTGGGCATGTCC
 TGTGATGGCCCTTCAAGCCGGATCACTACCGCTAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC200724 protein sequence
 Red=Cloning site Green=Tags(s)

MSDKLPYKVADIGLAAWGRKALDIAENEMPGLMRMRERYASASKPLKGARIAGCLHMTVETAVLIETLVTL
 GAEVQWSSCNIFSTQDHAAAAIAKAGIPVYAWKGETDEEYLWCIEQTLYFKDGPLNMILDDGGDLTNLIH
 TKYPQLLPGIRGISEETTTGVHNLKMMANGILKVPAINVNSVTKSKFDNLYGCRESLIDGIKRATDVM
 IAGKVAVVAGYGDVKGCAQALRGFGARVIITEIDPINALQAAMEGYEVTMDEACQEGNIFVTTTGCID
 IILGRHFEQMKDDAIVCNIGHFDVEIDVKWLNENAVEKVNIKPQVDYRRLKNGRRIILLAEGRVLNLGCA
 MGHPSPFVMSNSFTNQVMAQIELWTHPKYPVGVHFLPKKLDEAVAEHLGKLNVLTKLTKTEKQAQYLGMS
 CDGPFPKPDHRY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6051_c08.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_000687

ORF Size: 1296 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: [NM_000687.4](#)

RefSeq Size: 2211 bp

RefSeq ORF: 1299 bp

Locus ID: 191

UniProt ID: [P23526](#)

Cytogenetics: 20q11.22

Domains: AdoHcyase

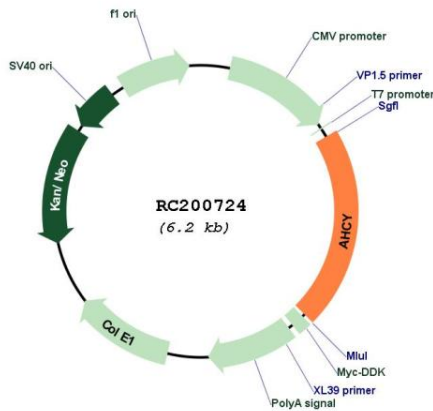
Protein Families: Druggable Genome

Protein Pathways: Cysteine and methionine metabolism, Metabolic pathways, Selenoamino acid metabolism

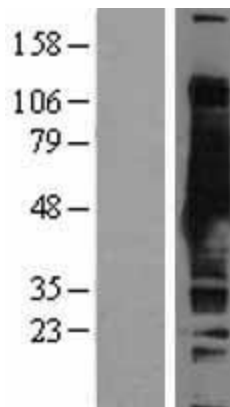
MW: 47.7 kDa

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]

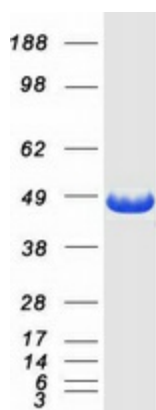
Product images:



Circular map for RC200724



Western blot validation of overexpression lysate (Cat# [LY400228]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200724 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified AHCY protein (Cat# [TP300724]). The protein was produced from HEK293T cells transfected with AHCY cDNA clone (Cat# RC200724) using MegaTran 2.0 (Cat# [TT210002]).