

Product datasheet for **RC228289**

Aminomethyltransferase (AMT) (NM_001164710) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aminomethyltransferase (AMT) (NM_001164710) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aminomethyltransferase
Synonyms:	GCE; GCST; GCVT; NKH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC228289 representing NM_001164710 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCAGAGGGCTGTAAGTGTGGTGGCCGCTCTGGGCTTTCGCCTGCAGGCATTCCCCCGGCCTTGTGTC
GTCCACTTAGTTGCGCACAGGAGGTGCTCCGACAGGACCCGCTCTATGACTTCCACCTGGCCACGGCGG
GAAAATGGTGGCGTTTGGGGTTGGAGTCTGCCAGTGCAGTACCGGGACAGTCACACTGACTCGCACCTG
CACACACGCCAGCACTGCTCGCTCTTTGACGTGTCTCATATGCTGCAGACCAAGATACTTGGTAGTGACC
GGGTGAAGCTGATGGAGAGTCTAGTGGTTGGAGACATTGCAGAGCTAAGACCAAACCAGGACAAGGTCAG
GGAGCTTCAGAACCAGGGCAGAGATGTGGGCCTGGAGGTGTTGGATAATGCCCTGCTAGCTCTGCAAGGC
CCCACTGCAGCCAGGTAACAGGCGCGGTGGCAGATGACCTGAGGAACTGCCCTTCATGACCAGTG
CTGTGATGGAGGTGTTTGGCGTGTCTGGCTGCCCGGTGACCCGCTGTGGCTACACAGGAGAGGATGGTGT
GGAGATCTCGGTGCCGTAGCGGGGCGAGTTCACCTGGCAACAGCTATTCTGAAAAACCCAGAGGTGAAG
CTGGCAGGGCTGGCAGCCAGGGACAGCTGCGCCTGGAGGCAGGCCTCTGCCTGTATGGGAATGACATTG
ATGAACACACTACACCTGTGGAGGGCAGCCTCAGTTGGACACTGGGAAGCGCCCGGAGCTGCTATGGA
CTTCCCTGGAGCCAAGGTCATTGTTCCCCAGCTGAAGGGCAGGGTGCAGCGGAGGCGTGTGGGGTTGATG
TGTGAGGGGCCCCCATGCGGGCACACAGTCCCATCCTGAACATGGAGGGTACCAAGATTGGTACTGTGA
CTAGTGGCTGCCCTCCCCTCTCTGAAGAAGAAATGTGGCGATGGGTTATGTGCCCTGCGAGTACAGTCTG
TCCAGGGACAATGCTGCTGGTAGAGGTGCGGCGGAAGCAGCAGATGGCTGTAGTCAGCAAGATGCCCTTT
GTGCCACAACTACTATAACCTCAAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



[View online »](#)

Protein Sequence: >RC228289 representing NM_001164710
 Red=Cloning site Green=Tags(s)

MQRAVSVVARLGFRLQAFPPALCRPLSCAQEVLRRTPLYDFHLAHGGKMAFAGWSLPVQYRDSHTDSDL
 HTRQHCSLFDVSHMLQTKILGSDRVKLMESLVVGDIAELRPNQDKVRELQNGRVDVLEVDNALLALQG
 PTAAQVLQAGVADDLRKLPFMTSAVMEVFGVSGCRVTRCGYTGEDGVEISVPVAGAVHLATAILKNPEVK
 LAGLAARDSLRLEAGLCLYGNDIDEHTTPVEGSLSWTLGKRRRAAMDFPGAKVIIVPQLKGRVQRRRVGLM
 CEGAPMRAHSPILNMEGTKIGTIVTSGCPSPLKKNVAMGYVPCYSRPGTMLLVEVRRKQMQMAMVSKMPF
 VPTNYYTLK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001164710

ORF Size: 1077 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_001164710.2](#)

RefSeq ORF: 1080 bp

Locus ID: 275

UniProt ID: [P48728](#)

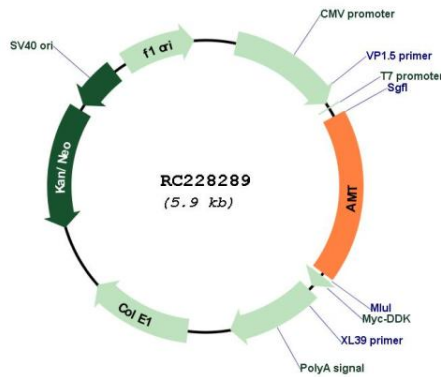
Cytogenetics: 3p21.31

Protein Pathways: Glycine, serine and threonine metabolism, Metabolic pathways, Nitrogen metabolism, One carbon pool by folate

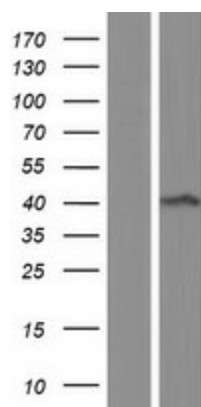
MW: 39.1 kDa

Gene Summary: This gene encodes one of four critical components of the glycine cleavage system. Mutations in this gene have been associated with glycine encephalopathy. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Sep 2011]

Product images:



Circular map for RC228289



Western blot validation of overexpression lysate (Cat# [LY431317]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC228289 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).