

## Product datasheet for RC234010

### Aminoacylase 1 (ACY1) (NM\_001198895) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Aminoacylase 1 (ACY1) (NM_001198895) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Aminoacylase 1
Synonyms:	ACY-1; ACY1D; HEL-S-5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC234010 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACCAGCAAGGGTCCCGAGGAGGAGCACCCATCGGTGACGCTCTTCCGCCAGTACCTGCGTATCCGCA  
CTGTCCAGCCCAAGCCTGACTATGGAGCTGCTGTGGCTTTCTTTGAGGAGACAGCCCGCAGCTGGGCT  
GGGCTGTCAGAAAGTAGAGGTGGCACCTGGCTATGTGGTGACCGTGTGACCTGGCCAGGCACCAACCT  
ACACTCTCTCCATCTTGCTCACTCCCACACGGATGTGGTGCCTGTCTCAAGGAACATTGGAGTCAGC  
ACCCCTTTGAGGCCTTCAAGGATTCTGAGGGCTACATCTATGCCAGGGGTGCCAGGACATGAAGTGCCT  
CAGCATCCAGTACCTGGAAGCTGTGAGGAGGCTGAAGGTGGAGGGCCACCGGTTCCCCAGAACCATCCAC  
ATGACCTTTGTGCTGATGAGGAGGTTGGGGTACCAAGGCATGGAGCTGTTCTGTCAGCGGCCTGAGT  
TCCACGCCCTGAGGGCAGGCTTTGCCCTGGATGAGGGCATAGCCAATCCCACTGATGCCTTCACTGTCTT  
TTATAGTGAGCGGAGTCCCTGGTGGGTGCGGGTACCAGCACTGGGAGGCCAGGCCATGCCTCACGCTTC  
ATGGAGGACACAGCAGCAGAGAAGCTGCACAAGTTGTAACTCCATCCTGGCATTCCGGGAGAAGGAAT  
GGCAGAGGCTGCAGTCAAACCCCACTGAAAGAGGGGTCCGTGACCTCCGTGAACCTGACTAAGCTAGA  
GGGTGGCGTGGCTATAACGTGATACCTGCCACCATGAGCGCCAGCTTTGACTTCCGTGTGGCACCAGGAT  
GTGGACTTCAAGGCTTTTGGAGGACAGCTGCAGAGCTGGTGCAGGCAGCTGGCGAGGGGGTCCACCTAG  
AGTTTGCTCAGAAGTGGATGCACCCCAAGTGACACCTACTGATGACTCAAACCTTGGTGGCGAGCTTT  
TAGCCGGGTCTGCAAGGATATGAACCTCACTCTGGAGCCTGAGATCATGCCTGCTGCCACTGACAACCGC  
TATATCCGCGCGGTGGGGTCCCAGCTCTAGGCTTCTACCCATGAACCGCACACCTGTGCTGCTGCACG  
ACCACGATGAACGGCTGCATGAGGCTGTGTTCTCCGTGGGGTGGACATATATACACGCCTGCTGCCTGC  
CCTTGCCAGTGTGCTGCCCTGCCAGTGACAGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**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\\_001198895.2](#)

**RefSeq Size:** 1673 bp

**RefSeq ORF:** 1227 bp

**Locus ID:** 95

**UniProt ID:** [Q03154](#)

**Cytogenetics:** 3p21.2

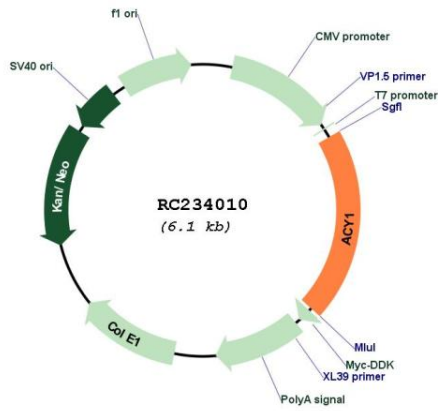
**Protein Families:** Protease

**Protein Pathways:** Arginine and proline metabolism, Metabolic pathways

**MW:** 45.9 kDa

**Gene Summary:** This gene encodes a cytosolic, homodimeric, zinc-binding enzyme that catalyzes the hydrolysis of acylated L-amino acids to L-amino acids and an acyl group, and has been postulated to function in the catabolism and salvage of acylated amino acids. This gene is located on chromosome 3p21.1, a region reduced to homozygosity in small-cell lung cancer (SCLC), and its expression has been reported to be reduced or undetectable in SCLC cell lines and tumors. The amino acid sequence of human aminoacylase-1 is highly homologous to the porcine counterpart, and this enzyme is the first member of a new family of zinc-binding enzymes. Mutations in this gene cause aminoacylase-1 deficiency, a metabolic disorder characterized by central nervous system defects and increased urinary excretion of N-acetylated amino acids. Alternative splicing of this gene results in multiple transcript variants. Read-through transcription also exists between this gene and the upstream ABHD14A (abhydrolase domain containing 14A) gene, as represented in GenelD:100526760. A related pseudogene has been identified on chromosome 18. [provided by RefSeq, Nov 2010]

Product images:



Circular map for RC234010