

Product datasheet for RC231193

Aminoacylase 1 (ACY1) (NM_001198898) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Aminoacylase 1 (ACY1) (NM_001198898) 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:	>RC231193 representing NM_001198898 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGC**C

ATGACCAGCAAGGGTCCCGAGGAGGAGCACCCATCGGTGACGCTCTCCGCCAGTACCTGCGTATCCGCA
CTGTCCAGCCCAAGCCTGACTATGGCACCAACCCTACACTCTCCTCCATCTTGCTCAACTCCCACACGGA
TGTGGTGCCTGTCTTCAAGGAACATTGGAGTCACGACCCCTTTGAGGCCCTCAAGGATTCTGAGGGCTAC
ATCTATGCCAGGGGTGCCAGGACATGAAGTGCCTCAGTACCTGGAAGCTGTGAGGAGGCTGA
AGGTGGAGGGCCACCGGTTCCCCAGAACCATCCACATGACCTTTGTGCCTGATGAGGAGGTTGGGGTCA
CCAAGGCATGGAGCTGTTGTCGTCAGCGGCTGAGTCCACGCCCTGAGGGCAGGCTTTGCCCTGGATGAG
GGCATAGCCAATCCCCTGATGCCTTCACTGTCTTTATAGTGAGCGGAGTCCCTGGTGGGTGCGGGTTA
CCAGCACTGGGAGGCCAGGCCATGCCTCAGCTTCATGGAGGACACAGCAGCAGAGAAGCTGCACAAGGT
TGTAACCTCCATCCTGGCATTCCGGGAGAAGGAATGGCAGAGGCTGCAGTCAAACCCCCACCTGAAAGAG
GGTCCGTGACCTCCGTGAACCTGACTAAGCTAGAGGGTGGCGTGGCCTATAACGTGATACCTGCCACCA
TGAGCGCCAGCTTTGACTTCCGTGTGGCACCGGATGTGGACTTCAAGGCTTTGAGGAGCAGCTGCAGAG
CTGGTGCCAGGCAGCTGGCGAGGGGTCACCCTAGAGTTTGTCTCAGAAGTGGATGCACCCCAAGTGACA
CCTACTGATGACTCAAACCTTGGTGGCAGCTTTAGCCGGTCTGCAAGGATATGAACCTCACTCTGG
AGCTGAGATCATGCCTGCTGCCACTGACAACCGCTATATCCGCGCGGTGGGGTCCCAGCTCTAGGCTT
CTACCCATGAACCGCACACCTGTGCTGCTGCACGACCACGATGAACGGTGCATGAGGCTGTGTTCCCT
CGTGGGTGGACATATACACGCTGCTGCCTGCCCTTGCCAGTGTGCCTGCCCTGCCAGTGACAGC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



[View online »](#)

- 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_001198898.2](#)

RefSeq ORF: 1122 bp

Locus ID: 95

UniProt ID: [Q03154](#)

Cytogenetics: 3p21.2

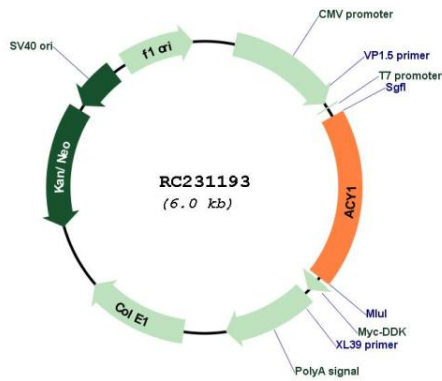
Protein Families: Protease

Protein Pathways: Arginine and proline metabolism, Metabolic pathways

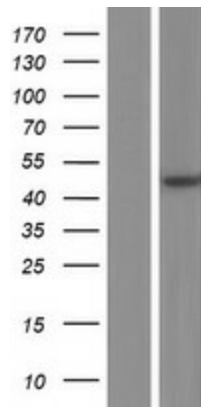
MW: 42.6 kDa

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 GeneID:100526760. A related pseudogene has been identified on chromosome 18. [provided by RefSeq, Nov 2010]

Product images:



Circular map for RC231193



Western blot validation of overexpression lysate (Cat# [LY434192]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC231193 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).