

Product datasheet for **RC239374**

NAALAD2 (NM_001300930) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	NAALAD2 (NM_001300930) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	NAALAD2
Synonyms:	GPCIII; GPCIII; NAADALASE2; NAALADASE2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC239374 representing NM_001300930
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGC**

ATGGCGGAATCCAGGGCCGCTGTACCTTTGGATGTGCTTGGCTGCTGCGCTGGCATCTTTCCTGATGG
 GATTTATGGTGGGCTGGTTTATTAAGCCTCTCAAGAAACGACCACTTCTGTGCGCTATCATCAAAGTAT
 ACGGTGGAAGTGGTATCCGAAATGAAAGCTGAAACATCAAATCATTTCTTCGTTCTTTTACAAAGCTT
 CCTCATCTGGCAGGAACAGAACAAAATTTCTTGCTTGCCAAGAAAATCCAAACCCAGTGGAAGAAATTTG
 GACTAGATTGAGCAAGTTGGTTCATTATGATGTCCTTATCTTACCCCAATGAGACAAATGCCAACTA
 TATATCGATTGTGGATGAACATGAACTGAGATTTTCAAACATCATACCTTGAACCACCACAGATGGC
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 TGGGAAGATTGTTATTGCAAGATATGAAAAATCTTCAGAGGAAATAAGTTAAAAATGCCATGTTAGCA
 GGAGCCATAGGAATCATCTTGTACTCAGATCCAGCTGACTACTTTGCTCCTGAGGTACAGCCATATCCCA
 AAGGATGGAATCTTCTGGAAGTGCAGCCAGAGAGGAAATGTGTTAAATTTGAATGGTGTGTTGACCC
 ACTCACTCCAGGCTATCCAGCAAAGAATACACTTTGAGACTTGATGTTGAAGAAGGAGTGGGAATCCCC
 CGAATACCTGTACATCCCATTTGGATATAATGATGCAGAAATATTATTACGGAAGGTTAGAATGCATGTTT
 ATAACATCAATAAAATTACAAGGATTTACAATGTAGTTGGAAGTATCAGAGGATCTGTGGAACCTGACAG
 GTATGTTATTCTGGGAGGTCACCGGGACTCCTGGGTATTTGGAGCTATTGACCCAACCAAGTGGGGTTGCT
 GTTTTGAAGAAATTTGCCCGAGTTTGGAAAACTGATGAGTAAAGGCTGGAGACCTAGAAGAACTATCA
 TTTTGGCAGCTGGGATGCAGAAGAATTTGGACTTCTGGGTCCACAGAATGGGCTGAGGAGAATGTCAA
 AATACTCCAGGAGAGAAGCATTGCTTATCAACTCGGATTCATCTATAGAAGGCAATTATACTCTCAGA
 GTTGACTGTACTCCCTTCTTTACCAATTAGTGTATAAACTGACAAAAGAGATCCCCAGCCCTGATGATG
 GGTTTGAGAGTAAATCACTGTATGAAAGCTGGTTGAAAAAGACCCTTCACCTGAAAAATAAAATTTGCC
 TAGAATCAATAAGCTGGGATCTGGAAGTGACTTTGAAGCTATTTTTCAGAGACTTGAATTGCTTCAGGC
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 AGACATTTGAATTGGTAGAGAAATTTATGACCCACATTTAAAAACAACCTTTCTGTGGCTCAATTACG
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 GCATTCATCGATCCTCTTGGTTTACCAGGAAAGCTGTTCTATAGGCACATCATATTTGCTCCAAGTAGCC
 ACAACAAATATGCTGGAGAATCATTTCTGGAATCTATGATGCTATCTTTGATATTGAAAAATAAGCCAA
 CTCTCGTTTGGCCTGGAAGAAGTAAAGAAACATATTTCTATTGCAGCTTTTACAATTCAAGCAGCAGCA
 GGAAGTCTGAAAGAAGTATTA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC239374 representing NM_001300930
 Red=Cloning site Green=Tags(s)

MAESRGRLYLWMCLAAALASFLMGFMVGFVFKPLKETTTSVRYHQSIKWLKLVSEMKAEIKSFLRSFTKL
 PHLAGTEQNFLAKKIQTQWKFGLDLAKLVHYDVLLSYNETNANYISIVDEHETEIFKTSYLEPPPDG
 YENVNTIYPPYNAFSAQGMPEGDLVYVNYARTEDFFKLEREMGINCTGKIVIRYKIFRGKVKNAMLA
 GAIGIILYSDPADYFAPEVQPYPKGWNLPGTAAQRGNVLNLNGADPLTPGYPAKEYTFRLDVEEGVGIP
 RIPVHPIGYNDAEILLRKVRMHVYNINKITRIYVVGTVIRGSVEPDYVILGGHRDSWVFGAIDPTSGVA
 VLQEIARSFGKLSKSGWRPRRTIIFASWDAEEFGLLGSTEWAEENVKILQERSIAYINSOSSIEGNYTLR
 VDCTPLLYQLVYKLTKEIPSPDDGFESKSLYESWLEKDPSPENKNLPRINKLGSQSDFEAYFQRLGIASG
 RARYTKNKKTDKYSSYPVYHTIYETFELVEKFYDPTFKKQLSVAQLRGALVYELVDSKIIPFNIQDYAEA
 LKNYAASIYNLSKKHDQQLTDHGVSFDSLFSVKNFSEAASDFHKRLIQVDLNNPIAVRMMNDQLMLLER
 AFIDPLGLPGKLFYRHIIFAPSSHNKYAGESFPGIYDAIFDIENKANSRLAWKEVKKHISIAAFTIQA
 AAGTLKEVL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_001300930

ORF Size: 2121 bp

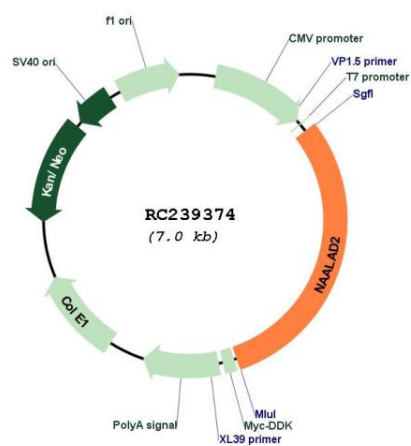
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_001300930.2</u>
RefSeq Size:	3097 bp
RefSeq ORF:	2124 bp
Locus ID:	10003
UniProt ID:	<u>Q9Y3Q0</u>
Cytogenetics:	11q14.3
Protein Families:	Druggable Genome, Transmembrane
MW:	80.6 kDa
Gene Summary:	This gene is a member of the N-acetylated alpha-linked acidic dipeptidase (NAALADase) gene family. The representative member of this family is the gene encoding human prostate-specific membrane antigen (PSM), which is a marker of prostatic carcinomas and is the first to be shown to possess NAALADase activity. NAALADase cleaves N-acetyl-L-aspartate-L-glutamate (NAAG), which is a neuropeptide expressed both in the central nervous systems and in the periphery and is thought to function as a neurotransmitter. The product of this gene is a type II integral membrane protein. Transient transfection of this gene confers both NAALADase and dipetidyl peptidase IV activities to mammalian cells. This gene is highly expressed in ovary and testis as well as within discrete brain areas. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2014]

Product images:



Circular map for RC239374