

Product datasheet for **RC222862**

Ataxin 1 (ATXN1) (NM_000332) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Ataxin 1 (ATXN1) (NM_000332) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ataxin 1
Synonyms:	ATX1; D6S504E; SCA1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC222862 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAAATCCAACCAAGAGCGGAGCAACGAATGCCTGCCTCCCAAGAAGCGGAGATCCCCGCCACCAGCC
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 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC222862 protein sequence
 Red=Cloning site Green=Tags(s)

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MKSNQERSNECLPPKKREIPATSRSSSEKAPTLPNDHRVEGTAWLPGNPGGRGHGGRRHGPAGTSVELG
LQQGIGLHKALSTGLDYSPPSAPRSVPVATTLPAAYATPQPGTPVSPVQYAPHTFQF IGSSQYSGTYA
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TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6463_c09.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_000332

ORF Size: 2445 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: [NM_000332.3](#)

RefSeq Size: 10636 bp

RefSeq ORF: 2448 bp

Locus ID: 6310

UniProt ID: [P54253](#)

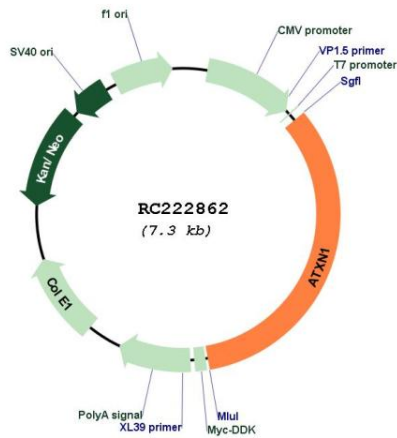
Cytogenetics: 6p22.3

Domains: AXH

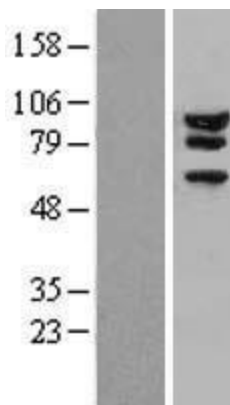
MW: 86.9 kDa

Gene Summary: The autosomal dominant cerebellar ataxias (ADCA) are a heterogeneous group of neurodegenerative disorders characterized by progressive degeneration of the cerebellum, brain stem and spinal cord. Clinically, ADCA has been divided into three groups: ADCA types I-III. ADCA I is genetically heterogeneous, with five genetic loci, designated spinocerebellar ataxia (SCA) 1, 2, 3, 4 and 6, being assigned to five different chromosomes. ADCA II, which always presents with retinal degeneration (SCA7), and ADCA III often referred to as the 'pure' cerebellar syndrome (SCA5), are most likely homogeneous disorders. Several SCA genes have been cloned and shown to contain CAG repeats in their coding regions. ADCA is caused by the expansion of the CAG repeats, producing an elongated polyglutamine tract in the corresponding protein. The expanded repeats are variable in size and unstable, usually increasing in size when transmitted to successive generations. The function of the ataxins is not known. This locus has been mapped to chromosome 6, and it has been determined that the diseased allele contains 40-83 CAG repeats, compared to 6-39 in the normal allele, and is associated with spinocerebellar ataxia type 1 (SCA1). Alternative splicing results in multiple transcript variants, with one variant encoding multiple distinct proteins, ATXN1 and Alt-ATXN1, due to the use of overlapping alternate reading frames. [provided by RefSeq, Nov 2017]

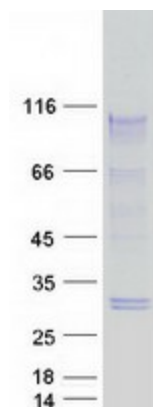
Product images:



Circular map for RC222862



Western blot validation of overexpression lysate (Cat# [LY426904]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC222862] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ATXN1 protein (Cat# [TP322862]). The protein was produced from HEK293T cells transfected with ATXN1 cDNA clone (Cat# RC222862) using MegaTran 2.0 (Cat# [TT210002]).