

## Product datasheet for RC218923

### Ataxin 3 (ATXN3) (NM\_004993) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Ataxin 3 (ATXN3) (NM_004993) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Ataxin 3
Synonyms:	AT3; ATX3; JOS; MJD; MJD1; SCA3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC218923 representing NM_004993 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGTCCATCTCCACGAGAAACAAGAAGGCTCACTTTGTGCTCAACATTGCCTGAATAACTTATTGC  
AAGGAGAATATTTAGCCCTGTGGAATTATCCTCAATTGCACATCAGCTGGATGAGGAGGAGAGGATGAG  
AATGCCAGAAGGAGGAGTTACTAGTGAAGATTATCGCACGTTTTTACAGCAGCCTTCTGAAATATGGAT  
GACAGTGGTTTTTCTCTATTCAAGTTATAAGCAATGCCTTCAAAGTTTGGGTTTGAAGTAACTCTGT  
TCAACAGTCCAGAGTATCAGAGGCTCAGGATCGATCCTATAAATGAAAGATCATTATATGCAATTATAA  
GGAACACTGGTTTACAGTTAGAAAATTAGGAAAACAGTGGTTAACTTGAATTCTCTCTTGACGGTCCA  
GAATTAATATCAGATACATATCTTGCACTTTTCTTGCTCAATTACAACAGGAAGTTTATCTATATTTG  
TCGTTAAGGGTGATCTGCCAGATTGCGAAGCTGACCAACTCCTGCAGATGATTAGGGTCCAACAGATGCA  
TCGACCAAACTTATTGGAGAAGAATTAGCACAATAAAAGAGCAAAGAGTCCATAAAACAGACCTGGAA  
CGAGTGTAGAAAGCAATGATGGCTCAGGAATGTAGACGAAGATGAGGAGGATTTGAGAGGGCTCTGG  
CACTAAGTCGCCAAGAAATTGACATGGAAGATGAGGAAGCAGATCTCCGACGGCTATTCAGCTAAGTAT  
GCAAGGTAGTTCCAGAAACATATCTCAAGATATGACACAGACATCAGGTACAAATCTTACTTCAGAAGAG  
CTTCGGAAGAGACGAGAAGCCTACTTTGAAAAACAGCAGCAAAAGCAGCAACAGCAGCAGCAGCAGC  
AGCAGGGGACCTATCAGGACAGAGTTCACATCCATGTGAAAGGCCAGCCACCAGTTCAGGAGCACTTGG  
GAGTGATCTAGGTGATGCTATGAGTGAAGAAGACATGCTTCAGGCAGCTGTGACCATGTCTTTAGAACT  
GTCAGAAATGATTTGAAAACAGAAGGAAAAAAA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTAA



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**Protein Sequence:** >RC218923 representing NM\_004993  
Red=Cloning site Green=Tags(s)

MESIFHEKQEGSLCAQHCLNNLLQGEYFSPVELSSIAHQLEEEERMRMAEGGVTSEDYRTFLQQPSGNMD  
 DSGFFSIQVISNALKVWGLELILFNSPEYQRLRIDPINERSFICNYKEHWFTVRKLGKQWFNLNSLLTGP  
 ELISDTYLALFLAQLQEGYSIFVVKGDLPDCEADQLLMIRVQQMHRPKLIGEELAQLKEQRVHKTDLE  
 RVLEANDGSGMLDEDEEDLQRALALSRQEIDMEDEEADLRRAIQLSMQGSRRNISQDMTQTSGTNLTSEE  
 LRRKREAYFEKQQKQQQQQQQQGDLSGQSSHP CERPATSSGALGSDLGDAMSEEDMLQAAVTMSLET  
 VRNDLKTEGKK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk8022\\_d05.zip](https://cdn.origene.com/chromatograms/mk8022_d05.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_004993

**ORF Size:** 1083 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\\_004993.6](#)

**RefSeq Size:** 2698 bp

**RefSeq ORF:** 1086 bp

**Locus ID:** 4287

**UniProt ID:** [P54252](#)

**Cytogenetics:** 14q32.12

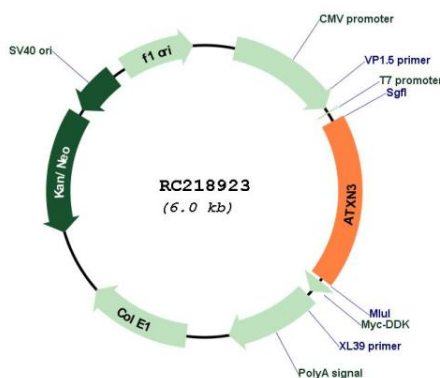
**Domains:** UIM, Josephin

**Protein Families:** Druggable Genome, Transcription Factors

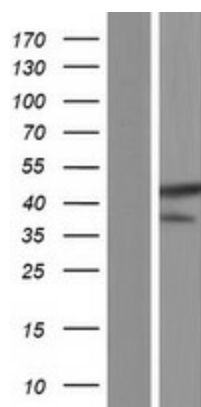
**MW:** 41.1 kDa

**Gene Summary:** Machado-Joseph disease, also known as spinocerebellar ataxia-3, is an autosomal dominant neurologic disorder. The protein encoded by this gene contains (CAG)*n* repeats in the coding region, and the expansion of these repeats from the normal 12-44 to 52-86 is one cause of Machado-Joseph disease. There is a negative correlation between the age of onset and CAG repeat numbers. Alternatively spliced transcript variants encoding different isoforms have been described for this gene. [provided by RefSeq, Jul 2016]

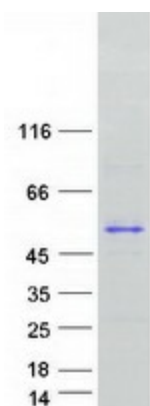
### Product images:



Circular map for RC218923



Western blot validation of overexpression lysate (Cat# [LY417607]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218923 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ATXN3 protein (Cat# [TP318923]). The protein was produced from HEK293T cells transfected with ATXN3 cDNA clone (Cat# RC218923) using MegaTran 2.0 (Cat# [TT210002]).