

Product datasheet for MR227495

Atxn3 (NM_029705) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Atxn3 (NM_029705) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Atxn3
Synonyms:	2210008M02Rik; AI463012; AI647473; ataxin-3; ATX3; Mjd; MJD1; Sca3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR227495 representing NM_029705 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGTCCATCTCCACGAGAAACAAGAAGGCTCACTTTGTGCTCAGCATTGCCTGAATAACCTATTGC
AAGGAGAGTATTTAGCCCTGTGGAGCTATCCTCAATTGCACACCAGCTGGATGAAGAGGAGAGGCTGAG
AATGGCAGAAGGGGGAGTCACTAGTGAAGACTACCGCACATTTTACAGCAGCCTTCTGAAATATGGAT
GACAGCGGCTTTTCTCTATTCAAGTTATAAGCAATGCTTTGAAAGTTTGGGTTTGAAGTAACTCTGT
TCAACAGTCCAGAGTACCAGAGGCTCAGAATTGATCCTATAAACGAAAGATCCTTTATATGCAATTATAA
AGAACTGGTTTACAGTTAGAAAATTAGCAAGCAGTGGTTAACTTGAATTCTCTGTTGACGGTCCA
GAATTAATATCAGATACATACCTCGCACTATTCTTGGCTCAATTACAGCAAGAAGTTATTTCTATATTTG
TTGTTAAGGGTATCTGCCAGATTGTGAAGCTGACCACTTTTGCAGATGATCAAGGTCCAACAGATGCA
TCGACCAAACTTATTGGAGAGGAACCTGCACATCTGAAAGAGCAGAGTGCCTCAAAGCAGACCTGGAG
CGCGTCTTAGAAGCAGCTGATGGGTCGGGCATATTTGATGAAGATGAGGATGATTTACAGAGGGCTCTAG
CCATAAGTCGCCAGGAAATCGACATGGAGGATGAAGAAGTGTCTCCGAGGGCCATTCAGCTCAGTAT
GCAAGGTAGTCCAGAAGTATGTGTGAAAATAGTCCACAGACATCAAGTCCAGATCTCTTTCAGAAGAG
CTGCGGAGGAGACGAGAAGCCTACTTTGAAAAGCAACAGCAGCAGCAGGAGGTAGACCGACCTGGAG
CCTTTTCATATCCACGTGAAAGACCGACCACAAGTTCAGGAGGACGTAGGAGCGACCAAGGAGGCGACGC
TGTGAGTGAAGAGGACATGCTTCGGGCAGCTGTGACCATGTCTTTAGAACTGCTAAAGCAACTTGAAA
GCAGAAAGAAAAAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >MR227495 representing NM_029705
Red=Cloning site Green=Tags(s)

MESIFHEKQEGSLCAQHCLNNLLQGEYFSPVELSSIAHQLDDEERLRMAEGGVTSEDYRTFLQQPSGNMD
 DSGFFSIQVISNALKVWGLELILFNSPEYQRLRIDPINERSFCINYKEHWFTVRKLGKQWFNLSLLTGP
 ELISDITYLALFLAQLQQEGYSIFVVKGDLPDCEADQLLQMIKVQQMHRPKLIGEELAHLKEQSALKADLE
 RVLEAADGSGIFDEDEDLQRALAISRQEIDMEDEEADLRRAIQLSMQGSRSRMCENSPQTSSPDLSSSEE
 LRRRREAYFEKQQQQQEVDRPGPLSYPRERPTTSSGGRRSDQGGDAVSEEDMLRAAVTMSLETAKDNLK
 AERKK

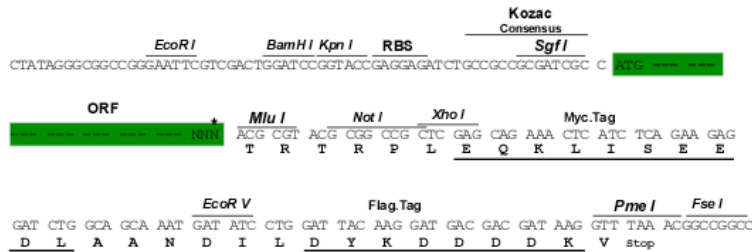
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_029705

ORF Size: 1065 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_029705.3](#), [NP_083981.2](#)

RefSeq Size: 5376 bp

RefSeq ORF: 1068 bp

Locus ID: 110616

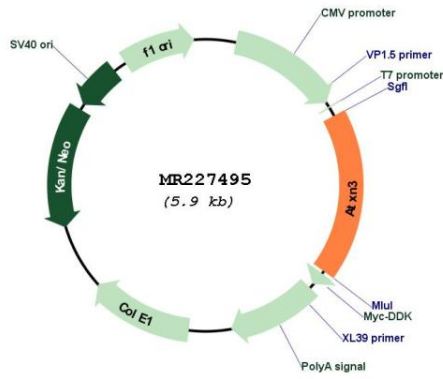
UniProt ID: [Q9CVD2](#)

Cytogenetics: 12 E

MW: 41 kDa

Gene Summary: Deubiquitinating enzyme involved in protein homeostasis maintenance, transcription, cytoskeleton regulation, myogenesis and degradation of misfolded chaperone substrates (By similarity). Binds long polyubiquitin chains and trims them, while it has weak or no activity against chains of 4 or less ubiquitins (By similarity). Involved in degradation of misfolded chaperone substrates via its interaction with STUB1/CHIP: recruited to monoubiquitinated STUB1/CHIP, and restricts the length of ubiquitin chain attached to STUB1/CHIP substrates and preventing further chain extension (PubMed:21855799). Interacts with key regulators of transcription and represses transcription: acts as a histone-binding protein that regulates transcription (By similarity). Regulates autophagy via the deubiquitination of 'Lys-402' of BECN1 leading to the stabilization of BECN1 (PubMed:28445460).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR227495