

Product datasheet for **RC202020**

Matrin 3 (MATR3) (NM_199189) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	Matrin 3
Synonyms:	ALS21; MPD2; VCPDM
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



ORF Nucleotide Sequence: >RC202020 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTGCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGTCCAAGTCATTCCAGCAGTCATCTCTCAGTAGGGACTCACAGGGTCATGGGCGTGACCTGTCTGCGG
CAGGAATAGGCCTTCTTGCTGCTGCTACCCAGTCTTTAAGTATGCCAGCATCTCTTGAAGGATGAACCA
GGTACTGCACGCCTTGCTAGTTAATGAATCTTGAATGAGTCTTCATTGAATCAACAAGGAGCTCAT
AGTGCAGTGTCTTCTGCTAGTACTTCTCCATAATTTGCAGTCTATATTTAACATTGGAAGTAGAGGTC
CACTCCCTTTATCTTCTCAACACCGTGGAGATGCAGACCAGGCCAGTAACATTTTGGCCAGCTTTGGTCT
GTCTGCTAGAGACTTAGATGAACTGAGTCGTTATCCAGAGGACAAGATTACTCCTGAGAAATTTGCCCAA
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CTGCTACACGGGAGCCACCATAACAGAGTACCTAGGGATGATTGGGAAGAAAAAGGCACTTTAGAAGAGA
TAGTTTGTGATGATCGTGGTCTAGTCTCAACCCAGTCTTGATTATGACCATGGAAGTCGTTCTCAAGAA
TCTGGTTATTATGACAGAAATGGATTATGAAGATGACAGATTAAAGATGGAGAAAGGTGTAGGGATGATT
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TGGCCCTTACAAGAGAGATCTCTCTTTGAGAAAAAGAGAGGCGCTCCTCCAAGTAGCAATATTGAAGAC
TTCCATGGACTCTTACCGAAGGTTATCCCATCTGTGCTCTATATGTGATTTGCCAGTTCATTCTAATA
AGGAGTGGAGTCAACATATCAATGGAGCAAGTCACAGTCGTGATGCCAGCTTCTTCTTGAATCTACCC
AGAATGGAATCCTGACAATGATACAGGACACACAATGGGTGATCCATTGTTGCAGCAGTCTACAAAT
CCAGCACCAGGAATCTGGGACCTCCACCTCCCTCATTTTCTTGGGGACCAGCAGTTGGACCAAGAG
GAAATCTGGTGTGGAATGGAACTGCAAGGACCTAGACACATGCAGAAAGGCAGAGTGGAACTAG
CAGAGTTGTTACATCATGGATTTTCAACGAGGGAAAAAATTGAGATACCAGCTATTACAGCTGGTAGAA
CCATTTGGAGTCATTTCAAATCATCTGATTCTAAATAAAATTAATGAGGCATTTATTGAAATGGCAACCA
CAGAGGATGCTCAGGCCGAGTGGATTATTACACAACCACACCAGCGTTAGTATTTGGCAAGCCAGTGAG
AGTTCATTTATCCAGAAGTATAAAAGAATAAAAGAACTGAAGGAAAGCCAGATCAGAAGTTTGATCAA
AAGCAAGAGCTTGGACGTGTGATACATCTCAGCAATTTGCCGCAATCTGGCTATTCTGATAGTGTGTTT
TCAAGCTTGTGAGCCTTATGGGAAAAATAAAGAATTACATATTGATGAGGATGAAAAGTCAGGCTTTTAT
TGAGATGGAGACAAGAGAAGATGCAATGGCAATGGTTGACCATTGTTTAAAAAAGCCCTTTGGTTTCAG
GGGAGATGTGTGAAGTTGACCTGTCTGAGAAAATAAAAACTGGTCTGAGGATTCACCAACAGAGGCA
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TCCGGTGAAGATGGTGAGAAAGACAAAAGGATGACCAGACAGAGCAGGAACCTAATATGCTTCTTGAAT
CTGAAGATGAGTACTTGTAGATGAAGAAGAAGCAGCAGCAGTCTAGAAAGTGGCAGTTTCAAGTGGGAGA
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TTCTGAGAAGCTGATGATCCCAACAAGATACAAGTAAAAACGCAGATGGTCAAAGTATGAGAACAAG
GACGACTATACAATCCAGATGAGTATAGAATTGGACCATATCAGCCCAATGTTCTGTTGGTATAGACT
ATGTGATACCTAAAACAGGGTTTTACTGTAAGCTGTGTTCACTCTTTTATACAAATGAAGAAGTTGCAAA
GAATACTATTGCAGCAGCCTTCTCATTATCAGAAATTAAGAAATTTCTGAATAAATGGCAGAAGAA
CGCAGACAGAAGAAGGAACT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC202020 protein sequence
Red=Cloning site Green=Tags(s)

MSKSFQSSLSRDSQGHGRDL SAAGIGLLAAATQSL SMPASLGRMNQGTARLASLMNLGMSSSLNQQGAH
SALSSASTSSHNLQSI FNIGSRGPLPSSQHRGDADQASNILASFGLSARDLDELSRYPEDKITPENLPQ
ILLQLKRRRTEEGPTLSYGRDGRSATREPPYRVPRDDWEEKRHFRRDSFDDRGPSLNPVLDYDHGSRSQE
SGYYDRMDYEDDRLRDGERCRDSSFGETSHNYHKFDSEYERMGRGPGPLQERSLFEKKRGAPSSNIED
FHGLLPKGYPHLCSICDLPVHSNKEWSQHINGASHSRRCQLLEIYPEWNPNDTGHTMGDPFMLQQSTN
PAPGILGPPPSFHLGGPAVGPRGNL GAGNGNLQGPRHMQKGRVETSRVVHIMDFQRGNLRYQLLQLVE
PFGVISNHLILNKINEAFIEMATTEDAQAADVYTTTPALVFGKPVRVHLSQKYKRIKKPEGKPDQKFDQ
KQELGRVIHL SNLPHSGYSDSAVLKLAEPYGIKINYILMRMKSQAFIEMETREDAMAMVDHCLKKALWFQ
GRCVKVDLSEKYKLVLRIPNRGIDLLKKDKSRKRSYSPDGKESPSDKKSKTDGSQKTESSTEGKEQEEK
SGEDGEKDTKDDQTEQEPNMLLESEDELLVDEEEAAALLES GSSVGDETDLANLGDVASDGKKEPSDKAV
KKDGSASAAKKLKKVDKIEELDQENEAALENGIKNEENTEPGAESSENADDPNKDTS ENADGQSDENK
DDYTIPDEYRIGPYQPNVPGIDYVIPKTGFYCKLCSLFYTNEEVAKNTHCSSLPHYQKLLKFLNLKLAEE
RRQKKET

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6289_g03.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

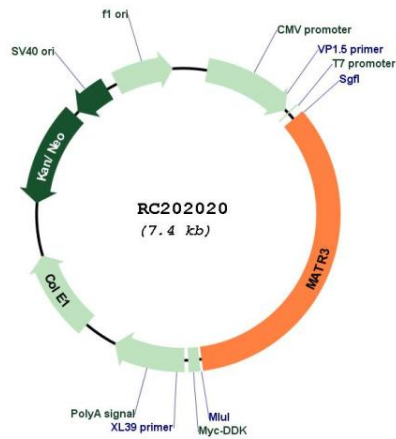
ACCN: NM_199189

ORF Size: 2541 bp

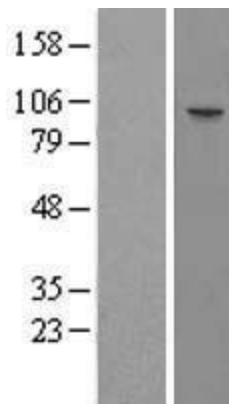
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
OTI Annotation:	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
Components:	<p>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).</p>
Reconstitution Method:	<ol style="list-style-type: none">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:	<p>Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.</p>
RefSeq:	<p>NM_199189.2, NP_954659.1</p>
RefSeq Size:	<p>5604 bp</p>
RefSeq ORF:	<p>2544 bp</p>
Locus ID:	<p>9782</p>
UniProt ID:	<p>P43243</p>
Cytogenetics:	<p>5q31.2</p>
MW:	<p>94.6 kDa</p>

Gene Summary:

This gene encodes a nuclear matrix protein, which is proposed to stabilize certain messenger RNA species. Mutations of this gene are associated with distal myopathy 2, which often includes vocal cord and pharyngeal weakness. Alternatively spliced transcript variants, including read-through transcripts composed of the upstream small nucleolar RNA host gene 4 (non-protein coding) and matrin 3 gene sequence, have been identified. Pseudogenes of this gene are located on chromosomes 1 and X. [provided by RefSeq, Aug 2013]

Product images:

Circular map for RC202020



Western blot validation of overexpression lysate (Cat# [LY412874]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC223258] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).