

Product datasheet for **RC221773**

Matrilin 3 (MATN3) (NM_002381) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Matrilin 3 (MATN3) (NM_002381) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Matrilin 3
Synonyms:	DIPOA; EDM5; HOA; OADIP; OS2; SEMDBCD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC221773 representing NM_002381
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGCCGCGCCCGCCCCGCGCGCCCTCCCGGACTCCTCCTGCTGCTCTGGCCGCTGCTGCTGCTGC
 CCTCCGCCGCCCCGACCCCGTGGCCCGCCGGGCTTCCGGAGGCTGGAGACCCGAGGTCCCGGGGCAG
 CCCTGGACGCGCCCTCTCCTGCGGCTCCCGACGGCGCCCGCTTCCGGGACCAGCGAGCCTGGCCG
 GCCCGCGGTGCAGGTGTTTGCAAGAGCAGACCCTTGGACCTGGTGTATCATTGATAGTTCTCGTAGCG
 TACGGCCCTGGAATCACCAAAGTAAAACTTTGTCTCCGGATAATCGACACTCTGGACATTGGGCC
 AGCCGACACGCGGGTGGCAGTGGTGAATATGCTAGCACTGTGAAGATCGAGTTCCAACCTCAGGCCAC
 ACAGATAAGCAGTCCCTGAAGCAGGCTGTGGTCAATCACACCCTTGTCAACAGGCACCATGTCAGGCC
 TAGCCATCCAGACAGCAATGGACGAAGCCTTACAGTGGAGGCAGGGCTCGAGAGCCCTCTTAAACAT
 CCCTAAGTGGCCATCATTGTTACAGATGGGAGCCCCAGGACCGGTGAATGAGGTGGCGGCTCGGGCC
 CAAGCATCTGGTATTGAGCTCTATGCTGTGGGCGTGGACCGGCAGACATGGCGTCCCTCAAGATGATGG
 CCAAGTGGCCCTAGAGGAGCATGTTTTCTACGTGGAGACCTATGGGGTATTGAGAACTTTCTCTAG
 ATTCAGGAACTTCTGTGCGCTGGACCCCTGTGTGCTTGAACACACCAGTGCACGACGCTGCATC
 AGTGATGGGGAAGCAAGCACCCTGTGAGTGTAGCCAAGGATACACCTTGAATGCCGACAAGAAAACGT
 GTTCAGCTCTTGATAGGTGTGCTTAAACCCACGGATGTGAGCACATCTGTGTGAATGACAGAAGTGG
 CTCTTATCATTGTGAGTGTATGAAGTTATACCTTGAATGAAGACAGGAAAACCTGTTCCAGCTCAAGT
 AAATGTGCTTTGGGTACCATGGGTGTGAGCACATTTGTGTGAATGACAGAAGGTTCCCATCATTGTG
 AATGCTATGAGGGCTACACTCTGAATGCAGATAAAAAACATGTTCCAGTCCGTGACAAGTGGCCCTAGG
 CTCTCATGGTTGCCAGCACATTTGTGTGAGTGTGGGGCCGATCCTACCACTGTGATTGCTATCTCGGC
 TACACCTTAAATGAGGACAAGAAAACATGTTCCAGCCACTGAGGAAGCAGGAAGACTTGTTCCTACTGAAG
 ATGCTTGTGGATGAAGCTACACTGGCATTCCAGGACAAGGTCAGCTCGTATCTTCAAAGACTGAACAC
 TAACTTGATGACATTTGGAGAAGTTGAAAATAAATGAATATGGACAAATACATCGT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC221773 representing NM_002381
 Red=Cloning site Green=Tags(s)

MPRPAPARRLPGLLLLLWPLLLLPSAAPDPVARPGRFRLETRGPGGSPGRRPSPAAPDGAPASGTSEPR
 ARGAGVCKSRPLDLVFIIDSSRSVRPLEFTKVKTFFVSRIIDTLDIGPADTRVAVVNYASTVKIEFLQAY
 TDKQSLKQAVGRITPLSTGTMSGLAIQTAMDEAFTVEAGAREPSSNIPKVAIIVTDGRPQDQVNEAARA
 QASGIELYAVGVDRADMASLKMMASEPLEEHVYVETYGVIEKLSRFQETFALDPCVLGTHQCQHVCI
 SDGEGKHHCECSQGYTLNADKKTCSALDRCALNTHGCEHICVNDRSGSYHCECYEGYTLNEDRKTCSAQD
 KCALGTHGCQHICVNDRTGSHHCECYEGYTLNADKKTCSVRDKCALGSHGCQHICVSDGAASYHDCYCPG
 YTLNEDKKTCSATEEARRLVSTEDACGCEATLAFQDKVSSYLQRLNKLDDILEKLIKINEYGQIHR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8007_g12.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_002381

ORF Size: 1458 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_002381.3](#), [NP_002372.1](#)
RefSeq Size: 2599 bp

RefSeq ORF: 1461 bp

Locus ID: 4148

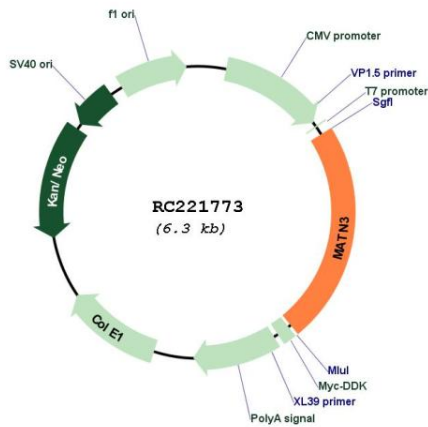
UniProt ID: [O15232](#)
Cytogenetics: 2p24.1

Protein Families: Druggable Genome, Secreted Protein

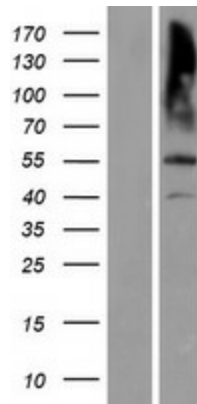
MW: 52.82 kDa

Gene Summary: This gene encodes a member of von Willebrand factor A domain containing protein family. This family of proteins is thought to be involved in the formation of filamentous networks in the extracellular matrices of various tissues. This protein contains two von Willebrand factor A domains; it is present in the cartilage extracellular matrix and has a role in the development and homeostasis of cartilage and bone. Mutations in this gene result in multiple epiphyseal dysplasia. [provided by RefSeq, Jul 2008]

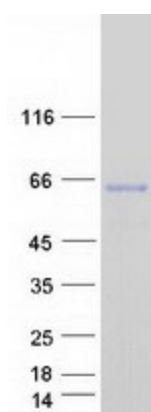
Product images:



Circular map for RC221773



Western blot validation of overexpression lysate (Cat# [LY419366]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221773 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MATN3 protein (Cat# [TP321773]). The protein was produced from HEK293T cells transfected with MATN3 cDNA clone (Cat# RC221773) using MegaTran 2.0 (Cat# [TT210002]).