

## Product datasheet for **RG209226**

### **ADAMTS4 (NM\_005099) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ADAMTS4 (NM_005099) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	ADAMTS4
Synonyms:	ADAMTS-2; ADAMTS-4; ADMP-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG209226 representing NM\_005099  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGTCCCAGATAGGCTCGCATCCCGGGAGGGGCTTGGCAGGGCGTGGCTGTGGGGAGCCCAACCCTGCC  
 TCCTGCTCCCATTTGTGCCGCTCTCCTGGCTGGTGGCTGCTTCTGCTACTGCTGGCCTCTCTCCCTGCC  
 CTAGCCCGGCTGGCCAGCCCCCTCCCGGGAGGAGGAGATCGTGTTCAGAGAAGCTCAACGGCAGC  
 GTCCTGCCTGGCTCGGGCGCCCTGCCAGGCTGTTGTGCCGCTTGCAGGCCTTTGGGGAGACGCTGCTAC  
 TAGAGCTGGAGCAGGACTCCGGTGTGCAGGTCGAGGGGCTGACAGTGCAGTACCTGGCCAGGCGCCTGA  
 GCTGCTGGGTGGAGCAGAGCCTGGCACCTACCTGACTGGCACCATCAATGGAGATCCGGAGTCGGTGGCA  
 TCTCTGCACTGGGATGGGGAGCCCTGTAGGCGTGTACAATATCGGGGGGCTGAACTCCACCTCCAGC  
 CCCTGGAGGGAGGCACCCTAATCTGCTGGGGGACCTGGGGCTCACATCTACGCCGAAGAGTCTCTGC  
 CAGCGGTCAAGGTCCCATGTGCAACGTCAAGGCTCCTCTTGAAGCCCCAGCCCCAGACCCGAAGAGCC  
 AAGCGCTTTGCTCACTAGTAGATTTGTGGAGACACTGGTGGTGGCAGATGACAAGATGGCCGCATTCC  
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 CATCCGCAATCCTGTGAGCTTGGTGGTACTCGGCTAGTGATCCTGGGGTCGGGCGAGGAGGGGCCCAA  
 GTGGGGCCAGTGTGCCAGACCTGCGCAGCTTCTGTGCCTGGCAGCGGGGCCCAACACCCCTGAGA  
 ACTCGGACCTGACCACTTTGACACAGCCATTCTGTTACCCGTCAGGACCTGTGTGGAGTCTCCACTTG  
 CGACACGCTGGGTATGGCTGATGTGGGCACCGTCTGTGACCCGGCTCGGAGCTGTGCCATTGTGGAGGAT  
 GATGGGCTCCAGTCAGCCTTCACTGCTGCTCATGAACTGGGTATGTCTCAACGTGCTCCATGACAAC  
 CCAAGCCATGCATCAGTTTGAATGGGCTTTGAGCACCTCTCGCCATGTCATGGCCCTGTGATGGCTCA  
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 GGGCACTGTCTCTTAGACAAACCAGAGGCTCCATTGCATCTGCCTGTGACTTTCCCTGGCAAGGACTATG  
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 GATGGCACACCTGCGGGCCCGCACAGGCTGCATGGGTGGTGGTGCCTCCACATGGACCAGCTCCAGG  
 ACTTCAATATTCCACAGGCTGGTGGTGGGCTCCTTGGGGACCATGGGGTACTGCTCTCGGACCTGTGG  
 GGGTGGTGTCCAGTTCTCTCCCGAGACTGCACGAGGCTGTACCCGGAATGGTGGCAAGTACTGTGAG  
 GGCCGCCGTGCCGCTTCCGCTCCTGCAACACTGAGGACTGCCCAACTGGCTCAGCCCTGACCTTCCGCG  
 AGGAGCAGTGTGCTGCCTACAACCACCGCACCGACCTTCAAGAGCTTCCAGGGCCCATGGACTGGGT  
 TCCTCGCTACACAGGCGTGGCCCCCAGGACCAGTGCAAACCTCACCTGCCAGGCCAGGCACTGGGCTAC  
 TACTATGTGCTGGAGCCACGGGTGGTAGATGGGACCCCTGTTCCCGGACAGCTCCTCGGTCTGTGTCC  
 AGGGCCGATGCATCCATGCTGGCTGTGATCGCATATTGGCTCCAAGAAGAAGTTTGACAAGTGCATGGT  
 GTGCGGAGGGGACGGTTCTGGTTGCAGCAAGCAGTCAGGCTCCTCAGGAAATTCAGGTACGGATAACAAC  
 AATGTGGTCACTATCCCCGCGGGGGCCACCCACATTCTTGTCGGCAGCAGGAAACCTGGCCACCGGA  
 GCATCTACTTGGCCCTGAAGCTGCCAGATGGCTCCTATGCCCTCAATGGTGAATACACGCTGATGCCCTC  
 CCCCACAGATGTGGTACTGCCTGGGGCAGTCAGCTTGGCTACAGCGGGGCCACTGCAGCCTCAGAGACA  
 CTGTGAGCCATGGGCCACTGGCCAGCCTTTGACACTGCAAGTCTAGTGGCTGGCAACCCCAAGGACA  
 CACGCCTCCGATACAGCTTCTTGTGCCCGGCCGACCCCTTCAACGCCACGCCCACTCCCAAGGACTG  
 GCTGCACCGAAGAGCACAGATTCTGGAGATCCTTCGGCGGCGCCCTGGGCGGGCAGGAAA

**ACGGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:** >RG209226 representing NM\_005099  
 Red=Cloning site Green=Tags(s)

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MSQIGSHPGRGLAGRWLWGAQPCLLLPIVPLSWLVWLLLLLLASLLPSARLASPLPREEEIVFPEKLNGS
VLPGSGAPARLLCRLQAFGETLLELEQDSGVQVEGLTVQYLGQAPELLGGAEPGYLTGTINGDPESVA
SLHWDGGALLGVLQYRGAEHLQPLEGGTPNSAGGPGAHLRRKSPASGGQPMC NVKAPLGSPSPRPRRA
KRFASLSRFVETLVVADDKMAAFHGAGLKRYLLTVMAAAAKAFKHP SIRNPVSLVVTRLVILGSGEEGPQ
VGP SAAQTLRSFCAWQRGLNTPENS DPHFDAILFTRQDL CGVSTCDTLGMADVGTVC DPARSCAIVED
DGLQSAFTA AHELGHVFVNLHDNSKPCISLNGPLSTSRHVMAPVM AHVDP EEPWSPCSARFITDFLDNGY
GHCLLDKPEAPLHLPVTFPGKDYDADRQCQLTFGPDSRHCPQLPPP CAALWCSGHLNGHAMCQTKHSPWA
DGTPCGPAQACMGG RCLHMDQLQDFNIPQAGGWGPWGPWGDCSRTC GGGVQFSSRDCTRPVTRNGGKYCE
GRRARFRSCNTEDCPTGSALTFREEQCAAYNHRTDLFKSFPGMDWVPRYTG VAPQDQCKLTCQAQALGY
YYVLEPRVVDGTPCSPDSSSVCVQGRCIHAGCDRIIGSKKKFDKCMVCGD GSGCSKQSGSFRKFRYGYN
NVVTIPAGATHILVRQQGNP GHRSIYLALKLPDGSYALNGEYTLMPSP TDVVLPGAVSLRYSGATAASET
LSGHGPLAQPLTLQVLVAGNPQDTRLRYSFFVPRPTPSTPRPTPQDWLH RRAQILEILRRRPWAGRK
  
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_005099

**ORF Size:** 2511 bp

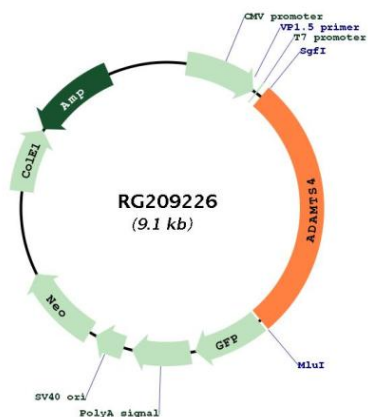
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone 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).

<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_005099.3</a> , <a href="#">NP_005090.2</a>
<b>RefSeq Size:</b>	4342 bp
<b>RefSeq ORF:</b>	2514 bp
<b>Locus ID:</b>	9507
<b>UniProt ID:</b>	<a href="#">O75173</a>
<b>Cytogenetics:</b>	1q23.3
<b>Protein Families:</b>	Druggable Genome, Protease, Secreted Protein, Transmembrane
<b>Gene Summary:</b>	<p>This gene encodes a member of the ADAMTS (a disintegrin and metalloproteinase with thrombospondin motifs) protein family. Members of this family share several distinct protein modules, including a propeptide region, a metalloproteinase domain, a disintegrin-like domain, and a thrombospondin type 1 (TS) motif. Individual members of this family differ in the number of C-terminal TS motifs, and some have unique C-terminal domains. The enzyme encoded by this gene lacks a C-terminal TS motif. The encoded preproprotein is proteolytically processed to generate the mature protease. This protease is responsible for the degradation of aggrecan, a major proteoglycan of cartilage, and brevican, a brain-specific extracellular matrix protein. The expression of this gene is upregulated in arthritic disease and this may contribute to disease progression through the degradation of aggrecan. Alternative splicing results in multiple transcript variants, at least one of which encodes an isoform that is proteolytically processed. [provided by RefSeq, Feb 2016]</p>

Product images:



Circular map for RG209226