

Product datasheet for SC119418

Angiogenin (ANG) (NM_001145) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Angiogenin (ANG) (NM_001145) Human Untagged Clone
Tag:	Tag Free
Symbol:	Angiogenin
Synonyms:	ALS9; HEL168; RAA1; RNASE4; RNASE5
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	<p>>OriGene ORF sequence for NM_001145 edited</p> <p>ATGGTGATGGGCTGGGCGTTTTGTTGTTGGTCTTCGTGCTGGGTCTGGGTCTGACCCCA CCGACCCCTGGCTCAGGATAACTCCAGGTACACACACTTCCTGACCCAGCACTATGATGCC AAACACAGGGCCGGGATGACAGATACTGTGAAAGCATCATGAGGAGACGGGGCTGACC TCACCCTGCAAAGACATCAACACATTTATTCATGGCAACAAGCGCAGCATCAAGGCCATC TGTGAAAACAAGAATGGAACCCCTCACAGAGAAAACCTAAGAATAAGCAAGTCTTCTTTC CAGGTCAACCACTTGCAAGCTACATGGAGGTTCCCCCTGGCCTCCATGCCAGTACCGAGCC ACAGCGGGGTTGAGAACGTTGTTGTTGCTTGTGAAAATGGCTTACCTGTCCACTTGGAT CAGTCAATTTCCGTCGTCGGTAA</p>
5' Read Nucleotide Sequence:	<p>>OriGene 5' read for NM_001145 unedited</p> <p>GGGTTTCGCATATTTGTATACGACTCACTATAGGGCGGCCGCGNAATTCGCACCAGACAAA CAGCTGGAACCCATCTCCCGTTGAAGGGAACTGCCAGATTTTGTAGCCTGTGTTGGAAG AGATGGTGATGGGCTGGGCGTTTTGTTGTTGGTCTTCGTGCTGGGTCTGGGTCTGACCC CACCGACCTGGCTCAGGATAACTCCAGGTACACACACTTCCTGACCCAGCACTATGATG CCAAACACAGGGCCGGGATGACAGATACTGTGAAAGCATCATGAGGAGACGGGGCTGA CCTCACCTGCAAAGACATCAACACATTTATTCATGGCAACAAGCGCAGCATCAAGGCCA TCTGTGAAAACAAGAATGGAACCCCTCACAGAGAAAACCTAAGAATAAGCAAGTCTTCTT TCAGGTCAACCACTTGCAAGCTACATGGAGGTTCCCCCTGGCCTCCATGCCAGTACCGAG CCACAGCGGGGTTGAGAACGTTGTTGTTGCTTGTGAAAATGGCTTACCTGTCCACTTGG ATCAGTCAATTTCCGTCGTCCGTAACACAGCGGGCCCTGGTCAAGTGCTGGCTCTGCTG TCCTTGCTTCCATTTCCCTCTGCACCCAGAAGTGGTGGCAACATTCATTGCCAAGG GCCCAAAGAAAGACTACCTGNACCTTTTGTGTTTGTGTTGACAACATGTTAATAAATA AAAATGTCTTGATATCAAAAAAAAAAAAAAAAAACGCGAGAGAGAGAAATGCCCTCC TTTTACCCCTACCATGAGCCCTACAAACACTAACCTGCCACTATAGTTATGTCATCCCTC TTATTATCATCATCCTAGCCCTAAGTCTGGCTATGAGTGACTCCCAAAGAATAGACTGAG CTG</p>


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3' Read Nucleotide Sequence:	<p>>OriGene 3' read for NM_001145 unedited</p> <pre> NTACTCTGNNACCGCGGCCGCAATCTANNATCGAGTTTTTTTTTTTTTTTTTTTTTTTTT TTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTAATCAAATAAATCAAATCCTTTTGG AGCCCCTCAAAGGCCAACTTAGGGCTGGGATGATGATTAAGGAGGGGTGACCTACCT TTTAGGGCAGGTTATTTTTTGAAGGGCTCATGGGAGGGGAAAAAGGGGGCAATTTCT TTTTTCTCGCTTTTTTTTTTTTTTTTTTGGAAAAAAACATTTTTTTTATAAAAC ATGTTGGAAAAAAAGGGCCAGGGACTTTTTTTTTTGGGCCCTTGGAAAAAA ATGTTCCCCCTGTTTTGGGGCAAAGGGGAAATGGAAGCAAGGACCCCAACCC CCTTTGCCAGGGGCCCTTGGTTCCGGCCAACGAAATTGCCTGACCAAGGGGACAG GTAACCTTTTCAAGCAACAACGTTTAAACCCGTTGGGGCTCGGTCTGCG ATGGAGGCCAGGGGAACCTCCTGTACCTTGCAAGGGGGACCTGAAAAAACTTGC TTATTCTAGGTTTCTTGGAGAGGTTCCATCCTTTGTTAAACAAAGGCCTTGATG CTGCCCTGGTCCAAAAAAATGGGGTGATGCCTTTCGAGGGGAGGGCAGGCCCC GTTTTCTCATGAAGCTTAAACAGTATCTGTCATCCCGCCTTGGGGTTTGGCATCAAAGG CCGGGCCAAGAAATGGGGGCACCTGAAATTTCTGAACAGGGCCGGGGGGTTCA ACCCCAACCCCGCCCAAAAAACAAAAAAACGCCGAGCCCTTACCATNNTTTTCA ACACGGGCTAAAAATTTGGGAGTTCCCTTACGGGAAAAAGGTTCCAATTGTTGTGGGG CCAATATCCGGGCCCATATAAGAACCTAT </pre>
Restriction Sites:	NotI-NotI
ACCN:	NM_001145
Insert Size:	960 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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:	<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:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_001145.2</u> , <u>NP_001136.1</u>
RefSeq Size:	805 bp
RefSeq ORF:	444 bp
Locus ID:	283
UniProt ID:	<u>P03950</u>

Cytogenetics: 14q11.2

Domains: RNase_Pc

Protein Families: Druggable Genome, Secreted Protein, Transmembrane

Gene Summary: The protein encoded by this gene is a member of the RNase A superfamily though it has relatively weak ribonucleolytic activity. This protein is a potent mediator of new blood vessel formation and thus, in addition to the name RNase5, is commonly called angiogenin. This protein induces angiogenesis after binding to actin on the surface of endothelial cells. This protein also accumulates at the nucleolus where it stimulates ribosomal transcription. Under stress conditions this protein translocates to the cytosol where it hydrolyzes cellular tRNAs and influences protein synthesis. A signal peptide is cleaved from the precursor protein to produce a mature protein which contains a nuclear localization signal, a cell binding motif, and a catalytic domain. This protein has been shown to be both neurotrophic and neuroprotective and the mature protein has antimicrobial activity against some bacteria and fungi, including *S. pneumoniae* and *C. albicans*. Due to its effect on rRNA production and angiogenesis this gene plays important roles in cell growth and tumor progression. Mutations in this gene are associated with progression of amyotrophic lateral sclerosis (ALS). This gene and the neighboring RNase4 gene share promoters and 5' exons though each gene then splices to a distinct 3' exon containing the complete coding region of each gene. Alternative splicing results in multiple transcript variants encoding the same protein. [provided by RefSeq, Jul 2020]

Transcript Variant: This variant (1) represents the longer transcript. Variants 1 and 2 encode the same isoform. Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.