

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:	ANG
Synonyms:	ALS9; HEL168; RAA1; RNASE4; RNASE5
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Cell Selection:	None
Fully Sequenced ORF:	>OriGene ORF sequence for NM_001145 edited ATGGTGATGGGCTGGGCGTTTTGTTGGTCTTCGTGCTGGGTCTGGGTCTGACCCCA CCGACCCTGGCTCAGGATAACTCCAGGTACACACACTTCCTGACCCAGCACTATGATGCC AAACCACAGGGCCGGATGACAGATACTGTGAAAGCATCATGAGGAGACGGGGCTGACC TCACCCTGCAAAGACATCAACACATTTATTCATGGCAACAAGCGCAGCATCAAGGCCATC TGTGAAAACAAGAATGGAAACCCTCACAGAGAAAACCTAAGAATAAGCAAGTCTTCTTC CAGGTCAACTTGCAAGCTACATGGAGGTTCCCCTGGCCTCCATGCCAGTACCGAGCC ACAGCGGGGTTCAAGAACGTTGTTGTTGCTTGTAAGTGGCTTACCTGTCCACTTGAT CAGTCAATTTCCGTCGTCGGTAA
5' Read Nucleotide Sequence:	>OriGene 5' read for NM_001145 unedited GGGTTTCGCATATTTGTATACGACTCACTATAGGGCGCCGCGNAATTCGCACCAGACAAA CAGCTGGAACCCATCTCCCGTTGAAGGGAAACTGCCAGATTTTTGAGCCTGTGTTGGAAG AGATGGTGATGGGCTGGGCGTTTTGTTGGTCTTCGTGCTGGGTCTGGGTCTGACCC CACCGACCCTGGCTCAGGATAACTCCAGGTACACACACTTCCTGACCCAGCACTATGATG CCAAACCACAGGGCCGGATGACAGATACTGTGAAAGCATCATGAGGAGACGGGGCTGA CCTCACCTGCAAAGACATCAACACATTTATTCATGGCAACAAGCGCAGCATCAAGGCCA TCTGTGAAAACAAGAATGGAAACCCTCACAGAGAAAACCTAAGAATAAGCAAGTCTTCTT TCCAGGTCAACTTGCAAGCTACATGGAGGTTCCCCTGGCCTCCATGCCAGTACCGAG CCACAGCGGGGTTCAGAAACGTTGTTGTTGCTTGTAAGTGGCTTACCTGTCCACTTGG ATCAGTCAATTTCCGTCGTCGTAACCCAGCGGGCCCCTGGTCAAGTGTGGCTCTGCTG TCCTTGCTTCCATTTCCCCTCTGCACCCAGAACAGTGGTGGCAACATTCATTGCCAAGG GCCCAAAGAAAGACTACCTGNACCTTTTGTCTGTTTGACAACATGTTAATAAATA AAAATGCTTGTATTTCAAAAAAAAAAAAAAAAAACCGAGAGAGAGAGAATTGCCCTCC TTTTACCCCTACCATGAGCCCTACAAACACTAACCTGCCACTATAGTTATGTCATCCCTC TTATTATCATCATCCTAGCCCTAAGTCTGGCTATGAGTGACTCCCAAAGAATAGACTGAG CTG



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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.