

Product datasheet for **SC118822**

Granulin (GRN) (NM_002087) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Granulin (GRN) (NM_002087) Human Untagged Clone
Tag:	Tag Free
Symbol:	Granulin
Synonyms:	CLN11; GEP; GP88; PCDGF; PEPI; PGRN
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC118822 sequence for NM_002087 edited (data generated by NextGen Sequencing)

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ATGTGGACCTGGTGAGCTGGGTGGCCTTAACAGCAGGGCTGGTGGCTGGAACGCGGTGC
CCAGATGGTCAGTTCTGCCCTGTGGCCTGCTGCCTGGACCCCGGAGGAGCCAGCTACAGC
TGCTGCCGTCCCCTTCTGGACAAATGGCCACAACACTGAGCAGGCATCTGGGTGGCCCC
TGCCAGGTTGATGCCACTGCTCTGCCGGCCACTCCTGCATCTTTACCGTCTCAGGGACT
TCCAGTTGCTGCCCTTCCCAGAGGCCGTGGCATGCGGGGATGGCCATCACTGTCGCCA
CGGGCTTCCACTGCAGTGCAGACGGGGATCCTGCTTCCAAAGATCAGGTAACAACCTCC
GTGGGTGCCATCCAGTGCCTGATAGTCAGTTCGAATGCCCGGACTTCTCCACGTGCTGT
GTTATGGTCGATGGCTCCTGGGGGTGCTGCCCCATGCCCCAGGCTTCTGCTGTGAAGAC
AGGGTGCAGTGTGTCGCACGGTGCCTTCTGCGACCTGGTTCACACCCGCTGCATCACA
CCCACGGGCACCCACCCCTGGCAAAGAAGCTCCCTGCCAGAGGACTAACAGGGCAGTG
GCCTTGTCCAGCTCGGTGATGTGTCGGACGCACGGTCCCGGTGCCCTGATGGTTCTACC
TGCTGTGAGCTGCCAGTGGGAAGTATGGCTGCTGCCAATGCCAACGCCACCTGCTGC
TCCGATCACTGCACTGCTGCCCAAGACACTGTGTGTGACCTGATCCAGAGTAAGTGC
CTCTCAAAGGAGAACGCTACCACGGACCTCCTCACTAAGCTGCCTGCGCACACAGTGGGG
GATGTGAAATGTGACATGGAGGTGAGCTGCCAGATGGCTATACTGCTGCCGTCTACAG
TCGGGGGCTGGGGCTGCTGCCCTTTTACCCAGGCTGTGTGCTGTGAGGACCACATACAC
TGCTGTCCCGGGGTTTACGTGTGACACGCAGAAGGGTACCTGTGAACAGGGGCCCCAC
CAGGTGCCCTGGATGGAGAAGGCCCCAGCTCACCTCAGCTGCCAGACCCACAAGCCTTG
AAGAGAGATGTCCCCTGTGATAATGTCAGCAGCTGTCCCTCCTCCGATACCTGCTGCCAA
CTCACGTCTGGGAGTGGGGCTGCTGTCCAATCCCAGAGGCTGTCTGCTGCTCGGACCAC
CAGCAGTGTGCCCCAGGGCTACACGTGTGTAGCTGAGGGGCAGTGTGAGCGAGGAAGC
GAGATCGTGGCTGGACTGGAGAAGATGCCTGCCCGCCGGGCTTCTTATCCCACCCAGA
GACATCGGCTGTGACCAGCACACAGCTGCCCGGTGGGGCAGACCTGCTGCCCGAGCCTG
GGTGGGAGCTGGGCTGCTGCCAGTTGCCCATGCTGTGTGCTGCGAGGATCGCCAGCAC
TGCTGCCCGGCTGGCTACACCTGCAACGTGAAGGCTCGATCCTGCGAGAAGGAAGTGGTC
TCTGCCAGCCTGCCACCTTCTGGCCGTAGCCCTCACGTGGGTGTGAAGGACGTGGAG
TGTGGGAAGGACACTTCTGCCATGATAACCAGACCTGCTGCCGAGACAACCGACAGGGC
TGGGCTGCTGTCCCTACCGCCAGGGCTGTGTTGTGCTGATCGGCGCCACTGCTGTCT
GCTGGCTTCCGCTGCGCAGCCAGGGGTACCAAGTGTGTCGCGAGGGAGGCCCGCGCTGG
GACGCCCTTTGAGGGACCCAGCCTTGAACAGCTGCTGTGA
    
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Clone variation with respect to NM_002087.2

5' Read Nucleotide Sequence: >OriGene 5' read for NM_002087 unedited

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TAGATTTTGTACACGACTCACTATAGGCGGCCGGAATTCGCACGAGGGAGCGCTACCCG
GTTGCTGCTGCCAAGGACCGCGGAGTCGACGCAGGCAGACCATGTGGACCCTGGTGAG
CTGGGTGGCCTTAACAGCAGGGCTGGTGGCTGGAACGCGGTGCCAGATGGTCAGTTCTG
CCCTGTGGCTGCTGCCTGGACCCCGGAGGAGCCAGCTACAGCTGCTGCCGTCCCCTTCT
GGACAAATGGCCACAACACTGAGCAGGCATCTGGGTGGCCCCTGCCAGTTGATGCCCA
CTGCTCTGCCGGCCACTCCTGCATCTTTACCGTCTCAGGGACTTCCAGTTGCTGCCCTT
CCCAGAGGCCGTGGCATGCGGGGATGGCCATCACTGCTGCCACGGGGCTTCCACTGCAG
TGCAGACGGGCGATCCTGCTTCCAAAGATCAGGTAACAACCTCCGTGGGTGCCATCCAGTG
CCCTGATAGTCAGTTCGAATGCCCGGACTTCTCCACGTGCTGTGTTATGGTCGATGGCTC
CTGGGGGTGCTGCCCCATGCCCCAGGCTTCTGCTGTGAAGACAGGGTGCAGTGTGCTCC
GCACGGTGCCTTCTGCGACCTGGTTCACACCCGCTGCATCACACCCACGGGCACCCACCC
CCTGNCAAAGAAGCTCCCTGCCAGAGGACTAACAGGGCAGTGGCCTTGTCCAGCTCGGT
CATGTGTCCCAGCACGGTCCCGGTGCCCTGATGGTTTACCTGCTGTGAGCTTGCCAG
TGGGAAGTATGGCTGCTGCCATGCCAAACGCCACTGCTGCTCCGATCACCTGCACTGC
TGCCCCAAGACACTGTGTGTGACCTGATCCANAGTTAGTGCCTTCCAAGAGAACGCTA
CACCGACTCTCACTAGCTGNCTGCCAACATGGGGGATGTGAA
    
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3' Read Nucleotide Sequence:	>OriGene 3' read for NM_002087 unedited CCCC GCGCCGCCCTCGCCCTCCCCCTCCCCCTCTCTTTACTTAGTACCCGGCCCGCA TACTACGATCGGTTTTTTTTTTTTTTTTTTTCGAAGTGTACAACTTTTATTGAAACGCAC ACGCGCACACACAAACACCCCTGTGGTTAGGGAAAAGCACCTGCCACAGGGTCCACT GAAACGGGGAGGGGATGGCAGCTTGTAAATGTGGCTTTTCCACAACCCCTTCTGACAGG GAAGGCCTTAGATTGAGGCCACCTCCCATGGTGATGGGAGCTCACAACGGTGCCCGAG CGAGACTTTGGTTAGGGCGAGGTGCTAGGGAGGCTGAGCATAGGGCACCTCTCCGAGTG GGGTCCCCACGCCTGCACAGTCTTCAGTACCTGCATCTACAATACCTGTCTCAAGGCTG GGTCCCTTAAAGGGCGCCCCACGCGGGCCTCCCTGTGCACACACTAGCTCCCCCTGG CTGCCCGTGCCAGCAAATAAGACCAGCTGTGCTTTCCACTCGCCCAACAACTCTGT CTGTAGGCGACCACCACATCAGCCCTTGCCCTTGTCTCCCTCCATTCCCGTCTATTT ATGCCCCACGGCCCTGCTTTAATTCCAGCCCTTTTACACCCACTCCCGGTTCCCGGC CCCC GAACCCCTACGTTGTCCACACCCACTTCTTTTCCCAGGACCGACCTTCCCC CTCCCCCCCCACCCCGAACCCTTTTGCACCCCAACAACCCACTACCCGGCC CCTTGCCCTATGCCCCCTCCATCCCCACCTTCCCCCTATTTCACTTACCCCCCCC ATTTTCTCTCCCCCCCCCTTCATCTCACGGCGCGACAAAGACACATTCTTTCCTC CTACTCTCCATTACCCACCCCCACCCCTTCTTTCCCCCTCCCGACTATAAC
Restriction Sites:	ECORI-NOT
ACCN:	NM_002087
Insert Size:	2300 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.
RefSeq:	<u>NM_002087.2</u> , <u>NP_002078.1</u>
RefSeq Size:	2323 bp
RefSeq ORF:	1782 bp
Locus ID:	2896
UniProt ID:	<u>P28799</u>
Cytogenetics:	17q21.31
Domains:	GRAN

Protein Families: Druggable Genome, Secreted Protein

Gene Summary: Granulins are a family of secreted, glycosylated peptides that are cleaved from a single precursor protein with 7.5 repeats of a highly conserved 12-cysteine granulin/epithelin motif. The 88 kDa precursor protein, progranulin, is also called proepithelin and PC cell-derived growth factor. Cleavage of the signal peptide produces mature granulin which can be further cleaved into a variety of active, 6 kDa peptides. These smaller cleavage products are named granulin A, granulin B, granulin C, etc. Epithelins 1 and 2 are synonymous with granulins A and B, respectively. Both the peptides and intact granulin protein regulate cell growth. However, different members of the granulin protein family may act as inhibitors, stimulators, or have dual actions on cell growth. Granulin family members are important in normal development, wound healing, and tumorigenesis. [provided by RefSeq, Jul 2008]
Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).