

Product datasheet for **SC301871**

GCN2 (EIF2AK4) (NM_001013703) Human Untagged Clone

Product data:

| | |
|---------------------------|--|
| Product Type: | Expression Plasmids |
| Product Name: | GCN2 (EIF2AK4) (NM_001013703) Human Untagged Clone |
| Tag: | Tag Free |
| Symbol: | GCN2 |
| Synonyms: | GCN2; PVOD2 |
| Mammalian Cell Selection: | None |
| Vector: | <u>pCMV6-XL4</u> |
| E. coli Selection: | Ampicillin (100 ug/mL) |

Fully Sequenced ORF: >OriGene sequence for NM_001013703 edited
GGCGCAGCGCTGCCATGGCTGGGGGCCGTGGGGCCCCGGGCGCGGGACGAGCCTC
CGGAGAGCTACCCGCAACGACAGGACGAGCTACAGGCCCTGGAGGCCATCTACGGCG
CGGACTTCCAAGACCTGCGGCCGACGCTTGGGACCGGTCAAAGAGCCCCCTGAAATCA
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CCATCCCTGTGCATCAGCTTCGCAGGTACACAGCTCAGCTCCTGTGAGGCCTTGATTATC
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GGAAGAAAGGAGATGTTTGGCGTCTTGGCCTTCTGCTGCTGTCCCTCAGCCAAGGACAGG
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TAAAGAAATGTGTGCTTGGATGACAAGGAAAGATGGAGTCCCCAGCAGTTGTTGAAAC
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 AAGGACAAGATTATGTTGAGACTGTTATTCCTAGCAACCGGTACCCAGTGCTGCCTTCT
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CTCGACTTCAGACCTCCCTTGCCAACTTACATCAGAAAAGCAGTGAAATTGAAATCTGG
 CTGTGGATCTACCCAAAGAAACAATATTACAGTTTTTATCATTAGAGTGGGATGCTGATG
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 TTAACCTCATTCAAACAGACAGAGGCTTATACTGGAATAATGGAATGTTGTACATTATC
 ATAATTTAAAATTAATTTCTAAGAAGAGGCTGGGTGCAGTGGCTCACACCTTTAATCCCA
 GCACCTTTGGGAAGCCAAGGCAGGAAGACTGCTTGAACCAGGAGTTTGAGACCAGCCTGA
 GCAACAAAGCAAGACCCCATCTCTATAAAAACTAAAAAATTAGTTGGGCATGGTGGCAC
 ATGCCTGTAGTCCAGCTACTCCAGAGGCTGAGATGGATCATCTGAGCCTCAGGAGGTTG
 AGGCTGCAGTGTGACTGCGCCACTGCACTCCAGTCTGGGACAACAGAGCAAGACC
 CTGTCTTAAAAAAGAAAAAATTTTTTTCTAAGAAGCTGTCTACAAAGTTG
 AGCTTTGTAGTTTTTTCATGTGTAATATATTATAAATTTATCTTTGGGATATAAATAA
 GCTTTCATATAAAAAAAAAAAAAAAAAAAAA

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001013703 unedited
 AGTTCNCATTTGTATACCACTCATATAGCGCGCCGNAATTCGCACGAGGCGCAGCGCT
 GCCATGGCTGGGGCCGTGGGGCCCCGGGCGCGCGGGACGAGCCTCCGGAGAGCTAC
 CCGCAACGACAGGACCACGAGCTACAGGCCCTGGAGGCCATCTACGGCGCGGACTCCAA
 GACCTGCGGCCGACGCTTGGGACCGGTCAAAGAGCCCCCTGAAATCAATTTAGTTTTG
 TACCCTCAAGGCCTAACTGGTGAAGAAGTATATGTAAGTGGATTTGAGGGTAAATGC
 CCACCTACCTATCCAGATGTAGTTCCTGAAATAGAGTTAAAAATGCCAAAGGTCTATCA
 AATGAAAGTGCAATTTGTTAAATCTCGCCTAGAAGAACTGGCCAAGAAACACTGTGGG
 GAGGTGATGATCTTTGAACTGGCTTACCACGTGCAGTCATTTCTCAGCGAGCATAACAAG
 CCCCCTCCAAGTCTTTTCATGAAGAAATGCTGGAAAGCGGGCTCAGGAGGAGCAGCAG
 AGGCTGTTGGAGGCCAAGCGGANAGAAGAGCAGGAGCAACGTGAAATCCTGCATGAGATT
 CAGAGAAGGAAAGAAGATAAAGAAGAGANAAGGAAGAAATGGCTAAGCAAGAAC
 GTTTGAAAATGCTAGTTGTCAAACCAAGATCATACCTCTAAGAAGGACCCAGNAGGAC
 ACAGAACGGCTGCCAATCTACATGGAAGCTCTCCTGACCTGTAGGAAATGGTAAACATC
 GGGGCANAACCTCAGGAAAGTCTAGCCGAGAACGTGTAATCTGTAATGTAAGTGA
 AAGATNCTCCTGCCTCTTGGGAAAAATCCTGTTTTAATATGGGGAGTCCCTGATTAGCTC
 ATGGGTGCCCAAAGGGAAT

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_001013703 unedited
 NCCCCATTGGANGATGGCACTTCCCAGGNCCAGGNANGAGCACTGGNNGNAGGGTCCACA
 GGNATGCCACCCGGGATCTGTTACAGAAACAGCTATGACCGCGCCGCAATCTAGAGTC
 GAGTTTTTTTTTTTTTTTTTTTATATGAAAGCATTATTATATCCAAAAAGATAAATTTAT
 AATATATTACACATGAAAACTAACAAAGCTCAACTTTGTAGGACAGCTTCTTAGAAAAA
 AAATTTTTTTTTCTTTTTTTTTTAAGACAGGGTCTTGCTCTGTTGTCCAGACTGGAGT
 GCAGTGGCGCAGTCACAGCTCACTGCAGCCTCAACCTCCTGAGGCTCAGATGATCCATCT
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 TTTTTATAGAGATGGGTCTTGCTTTGTTGCTCAGGCTGGTCTCAAACCTCTGGTTTCAA
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 TATAAGCCTCTGTCTGTTGAATGAGGTTAATGACAGTCTTTCAGGGTAAAATAAGATT
 CTGTAGTAGTCATCTCTATAGCTGTACAGAAATAGCACAGACACCTTTTTTTCTACTTTG
 ATGTTATAAATTTTCATCAGACTAATTTGAGGTATCTTTGCTTTGGCAGGCGTGACAGC
 AGCTGCTTACAGTTGTGTTAAATGCCTGTTTCATCAGCATCCCACTCTAATGATAAAAAAC
 TGTATATTGGTTCTTTGGGTAGATCCACAGCCAGAATTTCAAATTCAGTCTTTCT
 GAAGTAAGTTGCAAAGA

Restriction Sites:

Please inquire

ACCN:

NM_001013703

| | |
|-------------------------------|---|
| Insert Size: | 5500 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). |
| OTI Annotation: | The open reading frame of this TrueClone was fully sequenced and found to be a perfect match to the protein associated to this reference. |
| 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_001013703.2</u> , <u>NP_001013725.2</u> |
| RefSeq Size: | 5532 bp |
| RefSeq ORF: | 4950 bp |
| Locus ID: | 440275 |
| UniProt ID: | <u>Q9P2K8</u> |
| Cytogenetics: | 15q15.1 |
| Protein Families: | Druggable Genome, Protein Kinase |
| Gene Summary: | This gene encodes a member of a family of kinases that phosphorylate the alpha subunit of eukaryotic translation initiation factor-2 (EIF2), resulting in the downregulation of protein synthesis. The encoded protein responds to amino acid deprivation by binding uncharged transfer RNAs. It may also be activated by glucose deprivation and viral infection. Mutations in this gene have been found in individuals suffering from autosomal recessive pulmonary venoocclusive-disease-2. [provided by RefSeq, Mar 2014] |