

## Product datasheet for **SC112850**

### Gigaxonin (GAN) (NM\_022041) Human Untagged Clone

#### Product data:

|                           |                                                  |
|---------------------------|--------------------------------------------------|
| Product Type:             | Expression Plasmids                              |
| Product Name:             | Gigaxonin (GAN) (NM_022041) Human Untagged Clone |
| Tag:                      | Tag Free                                         |
| Symbol:                   | Gigaxonin                                        |
| Synonyms:                 | GAN1; GIG; KLHL16                                |
| Mammalian Cell Selection: | None                                             |
| Vector:                   | <u>pCMV6-XL4</u>                                 |
| E. coli Selection:        | Ampicillin (100 ug/mL)                           |



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**Fully Sequenced ORF:** >OriGene ORF within SC112850 sequence for NM\_022041 edited (data generated by NextGen Sequencing)

```
ATGGCTGAGGGCAGTGCCGTGTCTGACCCTCAGCACGCCGCGCTCTGCTGCGAGCGCTC
AGCTCTTTCCGCGAGGAGTCTCGCTTCTGCGACGCGCACCTGGTCTCGACGGGGAGGAG
ATCCCGGTGCAGAAGAATCCTGGCGGCGGCCAGCCGTACATCAGGACAAAGTTAAAC
TATAATCCTCCAAAGATGATGGATCAACTTATAAGATTGAACTTGAAGGGATATCGGTA
ATGGTTATGAGAGAGATCCTGGATTACATCTTCAGTGGGCAGATCAGGCTAAATGAAGAT
ACAAATCCAAAGATGTTGTTTCAGGCAGCTGACCTGCTGCTACTGACGGACCTTAAACCCCTG
TGCTGTGAGTTTTTGAAGGCTGCATTGCTGCTGAGAACTGTATTGGTATCCGTGACTTT
GCACTACATTACTGCCTCCATCAGCTTCATTACCTTGCCACAGAATACCTGGAGACTCAT
TTCCGAGACGTCAGCAGCACGGAAGAATTCTTAGAGCTGAGTCTCAAAAGCTTAAAGAA
GTGATTTCTCTTGAGAAGTTAAACGTTGGCAATGAAAGATATGTCTTTGAAGCAGTAATT
CGATGGATAGCACATGATACAGAAATAAGAAAGGTCCACATGAAGGATGTTATGTCAGCT
CTGTGGGTTTCAGGGTTGACTCCAGTTATTTACGGGAACAGATGCTGAATGAACCATT
GTACGAGAAATTGTCAAAGAGTGTAGCAATATACCGCTCAGCCAGCCGAGCAAGGGGAG
GCGATGCTGGCCAACTTCAAACCCGCGGCTACTCTGAGTGCATCGTGACTGTTGGTGGA
GAAGAGAGAGTTTTACGGAACCCACAGCAGCGATGCGATGCATGTGCCCTCTCTATGAC
CCTAACAGGCAGCTTTGGATCGAACTGGCCCTTTAAGCATGCCGAGAATTAACCATGGA
GTTCTCTCAGCAGAAGGATTTTTGTTTGTATTGCGGGGCCAAGATGAAAAAAGCAGACT
CTTAGCTCAGGAGAAAAGTATGATCCAGATGCAAAATACATGGACAGCATTGCCACCTATG
AACGAGGCAAGACATAACTTCGGAATTGTGGAGATAGATGGGATGCTGTACATTTTGGGA
GGAGAGGATGGTGAAGAGGAGCTGATTTCCATGGAGTGTACGATATTTATCTAAAACC
TGGCAAAAGCAACCTGATTTGACCATGGTCAGAAAGATCGGCTGCTATGCAGCTATGAAA
AAGAAAAATCTACGCCATGGGTGGAGGCTCTACGGAAGCTTTTTGAGTCTGTAGAGTGT
TATGATCCAGGACCCAGCAGTGGACTGCCATATGTCCACTAAAAGAGAGGAGGTTTGA
GCGGTGGCTGTGGAGTTGCTATGGAGCTGTATGTGTTTGGGGGAGTCCGAAGTCGTGAG
GACGCCAGGGTAGCGAGATGGTAACCTGCAAGTCCGAGTTCTACCATGATGAGTTTAA
AGGTGGATCTATCTTAACGACCAGAAATTTATGCATCCCCGCCAGTTCTCTTTTGTAT
GGAGCTGTACCTATAGGAGCCAGTATTTATGTTATTGGAGATCTTGATACAGGTACCAAT
TACGACTACGTGCGTGAGTTTAAAGAAGCACAGGAACCTGGCACCACACTAAACCACTC
CTTCCATCCGACCTTCGCGGTACAGGATGTGCAGCCTTACGCATTGCGAATTGCAAGCTT
TTCCGCTGCAGCTTCAGCAAGGCTTATCCGTATTCTGTTCATTCCCCTTGA
```

Clone variation with respect to NM\_022041.3

**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_022041 unedited

```
NGGTGCAAAATTTGTATACGACTCTATAGGGCGGCCGGAATTCGCACGAGGGCGCCGCG
GATAGCACAGGCACGTCCCGGGGCTCCAGCTTCTGCTCAGAGCGCGAGAGCCGGGCCG
GGCGGGCGCGCGCAGGACTCGGGCGCTCGAGGGGTCCGGCCGACGCTGTGCGGAGC
CGGACCCGTCGGCAGAGGAGCGGGCGCCGCGATGGCTGAGGGCAGTGCCGTGTCTGACCC
TCAGCACGCCGCGCTGCTGCGAGCGCTCAGCTCTTTCCGCGAGGAGTCTCGTTCTG
CGACGCGCACCTGGTCTCGACGGGGAGGAGATCCCGGTGCAGAAGAATCCTGGCGGC
GGCCAGCCCGTACATCAGGACAAAGTTAACTATAATCCTCCAAAGATGATGGATCAAC
TTATAAGATTGAACTTGAAGGGATATCGGTAATGGTTATGAGAGAGATCCTGGATTACAT
CTTCAGTGGGCAGATCAGGCTAAATGAAGATACAATCCAAGATGTTGTTTCAGGCAGCTGA
CCTGCTGCTACTGACGGACCTTAAACCCGTGTGCTGTGAGTTTTTGAAGGCTGCATTGC
TGCTGAGAACTGTATTGGTATCCGTGACTTTGCACTACATTACTGCCTNCATCACGTTCA
TTACCTTGCCACAGAATACCTGGAGACTCATTTCCGAGACGTCAGCAGCACGGAAGAATT
CTTAGAGCTGAGTCTCANAGCTTANAGAGTGANTTCTCTTGAGAAGTTAACGTTGGCAT
GAAAGATATGTCTTTGAAGCAGTATTNCGATGGATAGCACATGATACANGAATAGAAAGG
TNCCATGNAGGATGNTATGTCAGCTCTTGTGGGTTTCAGGGTGGNACTNCAGTTATTTAC
GGGAACAGATGCTGATGN
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|-------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>3' Read Nucleotide Sequence:</b> | <p>&gt;OriGene 3' read for NM_022041 unedited</p> <pre> CTTGGCCGCGCCGCATCTAAGATCGGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTGCA TGAAATGAGTCAACATTTATTTTACAATACTGAAATAACTGGAATTTACAAAAGAGTCAT GATTAATGGTGGAGCATAGTAAATTCAATACATCCCTATACTTCAACACAATATTTTAA TATTTATATATAGGAAAATAACAGTTTGGCACTTAACAGCTTTGTTGGTTATTGCATCCC ATATTATGGGGCAAATTTATTTTATAAACATTATCTAATTTCTGCAGTTATAGAGTCAA TGAAGTGAATTAATAAAAAAAAAAACACTATTTTATAAAATGAATTTACCAAGTCATGCA GGTACTGATAATTGCAAGAGGAACACATTCCTCCTAAATAATGAACTGGCTCCTTGG AGAGGCCTGGGGTAAACTGGAAAAAACTTTAAATATCAGAAATTAATAAGGAGAATT GCTGACGATCGGGGCTTTAACTGGATGGCAGTTACTGGTTTAATGGTCCCAATTACAGC TGCTGAATGCCAAGGTACTGTTCTGTACAGGACATTTACCAAAGCAAATTTAGTTTTTC AGCTATTTCTTCTCTAAACTAATATCTAGGTGCAAAAAGAAAAATCTTCTTTCTTT GCAGAGGCCACATAGTTTGCCTTCATTAATAAGATCTCCACACTGCTACTACGAAATGT GCAGACAACAGCTGACTGGTACAAAAACATTCTGAANTTGGNTTGGTACTGACATATTAA CATGATTGGATACATGACTGTGCGGACATCTGGCCTGGGGCTCTGCATATAGATAAAAC CCTACACCTCTCTATAGGNATCTNCTGCTAATGGAAGTTATGTACCAACTCCAATTCTA AACCCATAGCCAGATCTTTAAACCTTGAGCATGNACTGCTTACCAGGTAGAAAAATACA GGC </pre> |
| <b>Restriction Sites:</b>           | NotI-NotI                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>ACCN:</b>                        | NM_022041                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Insert Size:</b>                 | 4760 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>OTI Disclaimer:</b>              | 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).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Components:</b>                  | 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>                      | <u><a href="#">NM_022041.2</a></u> , <u><a href="#">NP_071324.1</a></u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>RefSeq Size:</b>                 | 4677 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>RefSeq ORF:</b>                  | 1794 bp                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Locus ID:</b>                    | 8139                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>UniProt ID:</b>                  | <u><a href="#">Q9H2C0</a></u>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Cytogenetics:</b>                | 16q23.2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Domains:</b>                     | BTB, Kelch                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |

**Protein Families:** Druggable Genome

**Gene Summary:** This gene encodes a member of the cytoskeletal BTB/kelch (Broad-Complex, Tramtrack and Bric a brac) repeat family. The encoded protein plays a role in neurofilament architecture and is involved in mediating the ubiquitination and degradation of some proteins. Defects in this gene are a cause of giant axonal neuropathy (GAN). [provided by RefSeq, Oct 2008]