

## Product datasheet for **SC303953**

### **GAB2 (NM\_012296) Human Untagged Clone**

#### **Product data:**

|                           |                                       |
|---------------------------|---------------------------------------|
| Product Type:             | Expression Plasmids                   |
| Product Name:             | GAB2 (NM_012296) Human Untagged Clone |
| Tag:                      | Tag Free                              |
| Symbol:                   | GAB2                                  |
| Mammalian Cell Selection: | Neomycin                              |
| Vector:                   | pCMV6-Entry (PS100001)                |
| E. coli Selection:        | Kanamycin (25 ug/mL)                  |



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**Fully Sequenced ORF:** >SC303953 representing NM\_012296.  
 Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAGCGGTGACCCAGATGTTCTGGAATACTACAAGAACGATCACTCCAAGAAGCCTCTGCGGATCATC
AACCTGAACCTTCTGTGAGCAGGTAGATGCAGGCCTGACCTTTAACAGAAGGAGCTGCAGGATAGTTTT
GTGTTTGACATCAAGACCAGTGAACGCACCTTTTACCTGGTGGCTGAGACAGAAGAGGACATGAATAAG
TGGGTCCAGAGCATCTGCCAGATCTGTGGCTTCAATCAGGCTGAGGAGAGCACAGACTCCCTGAGAAAT
GTTTCTCAGCCGGTCATGGCCCCGCTCTTCTCCAGCTGAGCTCAGCAGCTCTAGCCAGCACCTTCTC
CGAGAGCGCAAGTCTCAGCCCCATCACACTCCAGCCAGCCAACCTCTGTTACGTTTGAACCCCTGTG
TCAAACACATGCAGCCACCTGTCCACCAGCGCACCTCAGGAGTATCTCTACTTGCACCAAGTGCATA
AGCCGAAGAGCAGAAAAATGCAAGGAGTGCCAGCTTCTCTCAGGGCACCAGAGCCTCTTTTCTCATGAGG
AGTGACACAGCTGTACAAAACTTGCCAGGGCAATGGACTGTGTCAACGGGATCAGTGGTCAAGTC
CATGGCTTCTATAGCCTCCCAAGCCGAGCCGGCACAATACAGAATTCAGAGACAGTACCTACGACCTC
CCCCGAGCCTGGCTCCATGGCCACACCAAGGGCAGCCTCACAGGCTCCGAGACAGATAATGAGGAT
GTGTACACCTTCAAGACGCCAGCAACACCCTGTGCAGGGAGTTCGGGGACCTCCTGGTAGACAATATG
GATGTTCCGGCCACCCACTCTCAGCCTACCAGATCCCTAGGACATTCACCTCTGGACAAAAACCACAAT
GCCATGACAGTGGCCACTCCTGGGGACTCAGCCATAGCTCCCCACCCCGCCCCCAAGCCAAGTCAG
GCAGAAACACCTCGATGGGGCAGTCTCAGCAGAGACCCCAATCAGTAAAAATAGCAGATCTGTGCT
GCCACCATCCCCAGACGCAACACCCTCCCTGCAATGGACAACAGCCGACTTCACCGAGCTTCTTCTGT
GAGACCTACGAGTACCCACAGCGTGGTGGAGAGAGTGCAGGCCGGTCTGCTGAATCCATGAGTATGGA
GTTGGCTCTTTCCAGGGAAAAATGATTGTGGGCCGATCGGACAGACCAATTCGAAGACAATAT
GTGCCCATGAATCCAGGTTCTTCCACCCTGTTGGCCATGGAACGAGCAGGTGATAATTCCAGAGCGTC
TACATCCAATGAGCCCAGGGGCCATCACTTTGACTCACTTGGCTACCCATCAACAACCTTCTGTG
CACCGAGGCCCCAGCAGAGGAAGTGAATTCAGCCACCCCTGTCAACCGCAACCTCAAACCTGATCGG
AAAGCAAAGCCAACACCCTTGACCTGAGGAACAACACCGTCATCGATGAACTCCCTTCAAGTCACCT
ATCACCAGTCTTGGTCTAGGGCAACCACACCTTCAACTCCAGCTCCTCCAGTACTGCCGCCCATC
TCCACCCAGAGCATCACCAGCACAGACTCAGGAGACAGCGAAGAGAACTATGTCCCTATGCAAAACCA
GTGTCTGCATCTCCGTTCCAGTGGCAGCAACAGTCTGCCCTAAGAAGAGCACCGGCAGCGTTGAT
TATCTGGCCCTGGACTTCCAGCCGAGCTCCCCAAGCCCCACCGCAAGCCATCTACTTCATCCGTCACC
TCTGATGAGAAGGTGGACTACGTTCAAGTGGACAAGGAGAAGACCCAGGCCCTGCAGAACACCATGCAG
GAGTGGACAGACGTGCGGCAGTCTCAGAGCCTTCCAAGGGTGCCAAGCTGTGA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
  
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**Restriction Sites:** Sgfl-Mlul  
**ACCN:** NM\_012296  
**Insert Size:** 1917 bp

|                               |  |
|-------------------------------|--|
| <b>OTI Disclaimer:</b>        | <p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a></p> |
| <b>OTI Annotation:</b>        | <p>This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.</p>  |
| <b>Components:</b>            | <p>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).</p>  |
| <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>                | <a href="#">NM_012296.3</a>  |
| <b>RefSeq Size:</b>           | 6062 bp  |
| <b>RefSeq ORF:</b>            | 1917 bp  |
| <b>Locus ID:</b>              | 9846   |
| <b>UniProt ID:</b>            | <a href="#">Q9UQC2</a>   |
| <b>Cytogenetics:</b>          | 11q14.1  |
| <b>Protein Families:</b>      | Druggable Genome   |
| <b>Protein Pathways:</b>      | Chronic myeloid leukemia, Fc epsilon RI signaling pathway, Fc gamma R-mediated phagocytosis  |
| <b>MW:</b>                    | 70 kDa   |

**Gene Summary:**

This gene is a member of the GRB2-associated binding protein (GAB) gene family. These proteins contain pleckstrin homology (PH) domain, and bind SHP2 tyrosine phosphatase and GRB2 adapter protein. They act as adapters for transmitting various signals in response to stimuli through cytokine and growth factor receptors, and T- and B-cell antigen receptors. The protein encoded by this gene is the principal activator of phosphatidylinositol-3 kinase in response to activation of the high affinity IgE receptor. Two alternatively spliced transcripts encoding different isoforms have been described for this gene. [provided by RefSeq, Nov 2009]

Transcript Variant: This variant (2) differs in the 5' UTR, lacks a portion of the 5' coding region, and initiates translation at a downstream start codon, compared to variant 1. The encoded isoform (b) is shorter at the N-terminus, compared to isoform a.