

## Product datasheet for SC319370

### GRB2 (NM\_002086) Human Untagged Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** GRB2 (NM\_002086) Human Untagged Clone  
**Tag:** Tag Free  
**Symbol:** GRB2  
**Synonyms:** ASH; EGFRBP-GRB2; Grb3-3; MST084; MSTP084; NCKAP2  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC (PS100020)  
**E. coli Selection:** Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene sequence for NM\_002086.3  
GACCGGGCGGCGCAGCGGCGGCGGCTGTGGCAGAGTCTGTGCCCTGTGGCGGTGACG  
GCGGCGGAGCAAGCGCTGCCCTCGCAGAGCAGCCTTGGGGTCGCCGCCGCTCGCAGCG  
TTGTGGAGGGGCGGCGGCGGAGCGCTGAGCGGAGCAGCTGCCACGGGTGGCATTGTGTGT  
CCCAGAGTGCCGAGCGAGTCCCAGAAGAGAGGCGAGGCTAAGCCAGAGCGCTGGGTTG  
CTTCAGCAGGGAAGACTCCCTTCCCCTGCTTCAGGCTGCTGAGCACTGAGCAGCGCTCA  
GAATGGAAGCCATCGCCAAATATGACTTCAAAGCTACTGCAGACGACGAGCTGAGCTTCA  
AAAGGGGGACATCCTCAAGTTTTGAACGAAGAATGTGATCAGAACTGGTACAAGGCAG  
AGCTTAATGGAAGACGGCTTCATTCCAAGAAGTACATAGAAATGAAACCACATCCGT  
GGTTTTTGGCAAATCCCAGAGCCAAGGCAGAAGAAATGCTTAGCAAACAGCGGCACG  
ATGGGGCCTTTCTATCCGAGAGAGTGAGAGCGCTCCTGGGGACTTCTCCCTCTGTCA  
AGTTTGGAAACGATGTGCAGCACTTCAAGGTGCTCCGAGATGGAGCCGGGAAGTACTTCC  
TCTGGGTGGTGAAGTTCAATTCTTTGAATGAGCTGGTGGATTATCACAGATCTACATCTG  
TCTCCAGAAACCAGCAGATATTCTGCGGGACATAGAACAGGTGCCACAGCAGCCGACAT  
ACGTCCAGGCCCTCTTTGACTTTGATCCCAGGAGGATGGAGAGCTGGGCTTCCGCCGGG  
GAGATTTATCCATGTCATGGATAACTCAGACCCCAACTGGTGGAAAGGAGCTTGCCACG  
GGCAGACCGGCATGTTTTCCCGCAATTATGTACCCCCGTGAACCGGAACGTCTAAGAGT  
CAAGAAGCAATATTTAAAGAAAGTGAAAAATGAAAAACATACAAAAGAATTAACCC  
ACAAGCTGCCTCTGACAGCAGCCTGTGAGGGAGTGAGAACACCTGGCCGGTCAACCTG  
TGACCCTCACTTTGGTTGGAACTTTAGGGGGTGGAGGGGGCGTTGGATTTAAAAAATG  
CCAAAACCTTACCTATAAATTAAGAAGAGTTTTTATTACAAATTTTCACTGCTGCTCCTCT  
TTCCCCTCTTTGCTTTTTTTTTCATCCTTTTTTCTTCTGTCCATCAGTGCATGACGT  
TTAAGGCCACGTATAGTCTAGCTGACGCCAATAATAAAAAACAAGAAACCAAAAAA  
AAAAAAAAAAAAAAAAAAAAAAAAA

**Restriction Sites:** Please inquire



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<b>ACCN:</b>	NM_002086
<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>OTI Annotation:</b>	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.
<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_002086.3</a></u> , <u><a href="#">NP_002077.1</a></u>
<b>RefSeq Size:</b>	3317 bp
<b>RefSeq ORF:</b>	654 bp
<b>Locus ID:</b>	2885
<b>UniProt ID:</b>	<u><a href="#">P62993</a></u>
<b>Cytogenetics:</b>	17q25.1
<b>Domains:</b>	SH2, SH3
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Acute myeloid leukemia, B cell receptor signaling pathway, Chemokine signaling pathway, Chronic myeloid leukemia, Colorectal cancer, Dorso-ventral axis formation, Endometrial cancer, ErbB signaling pathway, Fc epsilon RI signaling pathway, Focal adhesion, Gap junction, Glioma, GnRH signaling pathway, Insulin signaling pathway, Jak-STAT signaling pathway, MAPK signaling pathway, Natural killer cell mediated cytotoxicity, Neurotrophin signaling pathway, Non-small cell lung cancer, Pathways in cancer, Prostate cancer, Renal cell carcinoma, T cell receptor signaling pathway

**Gene Summary:**

The protein encoded by this gene binds the epidermal growth factor receptor and contains one SH2 domain and two SH3 domains. Its two SH3 domains direct complex formation with proline-rich regions of other proteins, and its SH2 domain binds tyrosine phosphorylated sequences. This gene is similar to the Sem5 gene of *C.elegans*, which is involved in the signal transduction pathway. Two alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1). 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.