

## Product datasheet for SC305029

### GH2 (NM\_022556) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GH2 (NM_022556) Human Untagged Clone
Tag:	Tag Free
Symbol:	GH2
Synonyms:	GH-V; GHB2; GHL; GHV; hGH-V
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC305029 representing NM_022556. Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTG  
 GATCCGGTACCGAGGAGATCTGCCGCC**CGATCGCC**  
 ATGGCTGCAGGCTCCCGACGTCCTGCTCCTGGCTTTTGGCCTGCTCTGCCTGCTCCTGGCTTCAAGAG  
 GGCAGTGCCTTCCCAACCATTCCTTATCCAGGCTTTTGAACGCTATGCTCCGCGCCGTCGCTG  
 TACCAGCTGGCATATGACACCTATCAGGAGTTTAAACCCAGACCTCCCTCTGCTCTCAGAGTCTATT  
 CCAACACCTTCCAACAGGGTAAAACGCAGCAGAAATCTAACCTAGAGCTGCTCCGCATCTCCCTGCTG  
 CTCATCCAGTCATGGCTGGAGCCGTCAGCTCCTCAGGAGCGTCTCGCAACAGCCTGGTGTATGGC  
 GCCTCGGACAGCAACGTCTATCGCCACCTGAAGGACCTAGAGGAAGGCATCCAAACGCTGATGTGGAGG  
 CTGGAAGATGGCAGCCCCGGACTGGGCAGATCTTCAATCAGTCCTACAGCAAGTTTGACACAAAATCG  
 CACAACGATGACGCACTGCTCAAGAACTACGGGCTGCTCTACTGCTTCAGGAAGGACATGGACAAGGTC  
 GAGACATTCTGCGCATCGTGCAGTGCCGCTCTGTGGAGGGCAGCTGTGGCTTCTAG  
**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT  
 TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites:	Sgfl-MluI
ACCN:	NM_022556
Insert Size:	609 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).


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<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_022556.3</a></u>
<b>RefSeq Size:</b>	876 bp
<b>RefSeq ORF:</b>	609 bp
<b>Locus ID:</b>	2689
<b>UniProt ID:</b>	<u><a href="#">P01242</a></u>
<b>Cytogenetics:</b>	17q23.3
<b>Protein Families:</b>	Druggable Genome, Secreted Protein
<b>Protein Pathways:</b>	Cytokine-cytokine receptor interaction, Jak-STAT signaling pathway, Neuroactive ligand-receptor interaction
<b>MW:</b>	23.1 kDa
<b>Gene Summary:</b>	<p>The protein encoded by this gene is a member of the somatotropin/prolactin family of hormones which play an important role in growth control. The gene, along with four other related genes, is located at the growth hormone locus on chromosome 17 where they are interspersed in the same transcriptional orientation; an arrangement which is thought to have evolved by a series of gene duplications. The five genes share a remarkably high degree of sequence identity. Alternative splicing generates additional isoforms of each of the five growth hormones, leading to further diversity and potential for specialization. As in the case of its pituitary counterpart, growth hormone 1, the predominant isoform of this particular family member shows similar somatogenic activity, with reduced lactogenic activity. Mutations in this gene lead to placental growth hormone/lactogen deficiency. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (4) utilizes an alternative splice acceptor site 45 nt into exon 3 to generate the 20-kDa isoform (4) which has an internal deletion relative to the predominant 22-kDa isoform (1).</p>