

## Product datasheet for **RC218082**

### **GH2 (NM\_022556) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** GH2 (NM\_022556) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**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)  
**ORF Nucleotide Sequence:** >RC218082 representing NM\_022556  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGCTGCAGGCTCCCGGACGTCCTGCTCCTGGCTTTTGGCCTGCTCTGCCTGCTCTGGCTTCAAGAGG  
GCAGTGCCTTCCCAACCATTCCCTTATCCAGGCTTTTGGACAACGCTATGCTCCGCGCCCGTGCCTGTA  
CCAGCTGGCATATGACACCTATCAGGAGTTTAACCCAGACCTCCCTGCTTCTCAGAGTCTATTCCA  
ACACCTTCCAACAGGGTAAAACGCAGCAGAAATCTAACCTAGAGCTGCTCCGCATCTCCCTGCTGCTCA  
TCCAGTCAATGGTGGAGCCCGTGCAGCTCCTCAGGAGCGTCTCGCCAACAGCCTGGTGTATGGCGCCTC  
GGACAGCAACGCTATCGCCACCTGAAGGACCTAGAGGAAGGCATCCAAACGCTGATGTGGAGGCTGGAA  
GATGGCAGCCCCGGACTGGGCAGATCTTCAATCAGTCTACAGCAAGTTTGACACAAAATCGCACAAACG  
ATGACGCACTGCTCAAGAACTACGGGCTGCTCTACTGCTTACAGGAAGGACATGGACAAGGTGCGAGACATT  
CCTGCGCATCGTGCAGTCCCGCTCTGTGGAGGGCAGCTGTGGCTTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC218082 representing NM\_022556  
**Red=Cloning site Green=Tags(s)**

MAAGSRTSLLAFGLLCLSWLQEGSAFPTIPLSRLFDNAMLRRRLYQLAYDTYQEFNPQTSLCFSESIP  
TPSNRVKTQQKSNLELLRISLLLIQSWLEPVQLLRVFNANSLVYGASDSNVYRHLKDLEEGIQTLMWRL  
DGSPTGQIFNQSYSKFDTKSHNDALLKNYGLLYCFRKDMDKVETFLRIVQCRSVEGSCGF

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

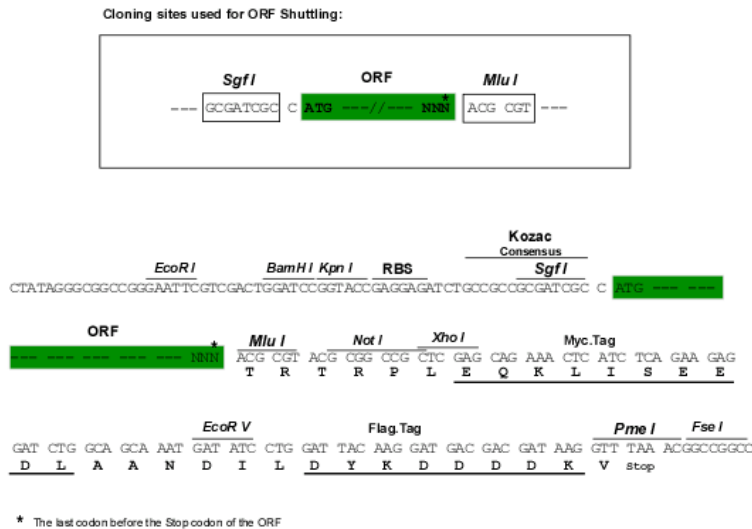


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**Chromatograms:** [https://cdn.origene.com/chromatograms/ja1458\\_a06.zip](https://cdn.origene.com/chromatograms/ja1458_a06.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_022556

**ORF Size:** 606 bp

**OTI Disclaimer:** 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. [More info](#)

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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:**
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:** [NM\\_022556.4](#)

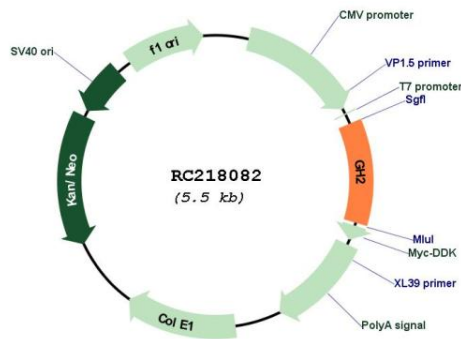
**RefSeq Size:** 776 bp

**RefSeq ORF:** 609 bp

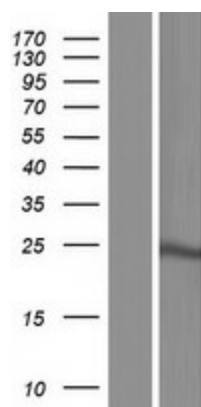
**Locus ID:** 2689

**UniProt ID:** [P01242](#)  
**Cytogenetics:** 17q23.3  
**Protein Families:** Druggable Genome, Secreted Protein  
**Protein Pathways:** Cytokine-cytokine receptor interaction, Jak-STAT signaling pathway, Neuroactive ligand-receptor interaction  
**MW:** 22.9 kDa  
**Gene Summary:** 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]

**Product images:**



Circular map for RC218082



Western blot validation of overexpression lysate (Cat# [LY411624]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218082 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).