

Product datasheet for **RG209608**

Growth Hormone (GH1) (NM_022559) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Growth Hormone (GH1) (NM_022559) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: Growth Hormone
Synonyms: GH; GH-N; GHB5; GHN; hGH-N; IGHD1A; IGHD1B; IGHD2
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG209608 representing NM_022559
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCTACAGGCTCCCGACGTCCTGCTCCTGGCTTTTGGCCTGCTCTGCCTGCCCTGGCTCAAGAGG
 GCAGTGCCTTCCAACCATTCCTTATCCAGGCTTTTGGACAACGCTATGCTCCGCGCCCATCGTCTGCA
 CCAGCTGGCCTTTGACACCTACCAGGAGTTTAACCCCAAGACCTCCCTCTGTTTCTCAGAGTCTATTCCG
 ACACCCCTCAACAGGGAGGAAACACAACAGAAATCCAACCTAGAGCTGCTCCGCATCTCCCTGCTGCTCA
 TCCAGTCGTGGCTGGAGCCCGTGCAGTTCCTCAGGAGTGTCTTCCCAACAGCCTGGTGTACGGCGCCTC
 TGACAGCAACGCTATGACCTCCTAAAGGACCTAGAGGAAGGCATCCAAACGCTGATGGGAGGCTGGAA
 GATGGCAGCCCCGGACTGGGCAGATCTTCAAGCAGACCTACAGCAAGTTCGACACAACTCACACAACG
 ATGACGCACTACTCAAGAACTACGGGCTGCTCTACTGCTTCAAGGAAGGACATGGACAAGGTGCGAGACATT
 CCTGCGCATCGTGCAGTCCCGCTCTGTGGAGGGCAGCTGTGGCTTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG209608 representing NM_022559
 Red=Cloning site Green=Tags(s)

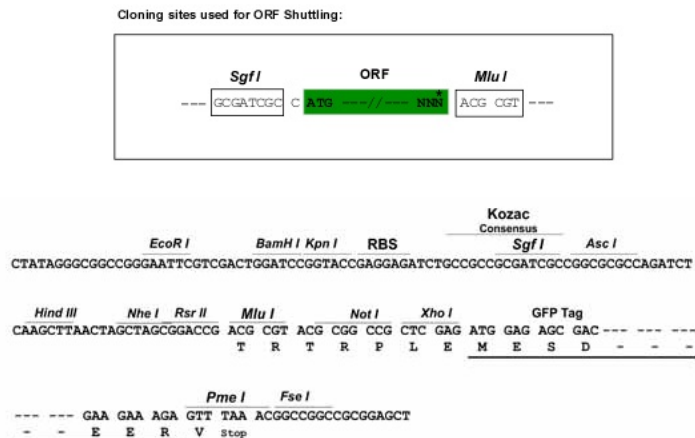
MATGSRTSLLLAFGLLCLPWLQEGSAFPTIPLSRLFDNAMLRAHRLHQLAFDITYQEFNPQTSLCFSESIP
 TPSNREETQQKSNLELLRISLLL IQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDL EEGIQTL MGRLE
 DGSPTGQIFKQTYSKFDTNSHNDALLKKNYGLLYCFRKMDKVFTRIVQCRSVEGSCGF

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI



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Cloning Scheme:


ACCN: NM_022559

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_022559.4](#)

RefSeq Size: 777 bp

RefSeq ORF: 609 bp

Locus ID: 2688

UniProt ID: [P01241](#)

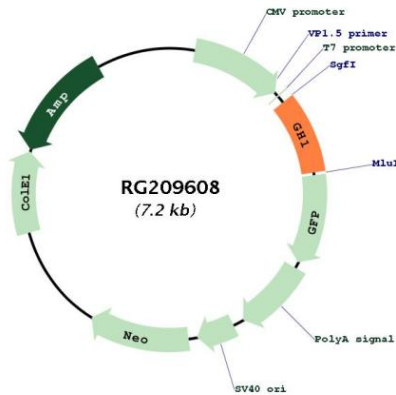
Cytogenetics: 17q23.3

Protein Families: Druggable Genome, Secreted Protein

Protein Pathways: Cytokine-cytokine receptor interaction, Jak-STAT signaling pathway, Neuroactive ligand-receptor interaction

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. This particular family member is expressed in the pituitary but not in placental tissue as is the case for the other four genes in the growth hormone locus. Mutations in or deletions of the gene lead to growth hormone deficiency and short stature. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG209608