

Product datasheet for **RG215961**

Growth Hormone (GH1) (NM_022561) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Growth Hormone (GH1) (NM_022561) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GH1
Synonyms:	GH; GH-N; GHN; hGH-N; IGHD1B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG215961 representing NM_022561 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCTACAGGCTCCCGACGTCCTGCTCCTGGCTTTTGGCCTGCTCTGCCTGCCCTGGCTTCAAGAGG
GCAGTGCCTTCCAACCATTCCTTATCCAGGCTTTTGGACAACGCTATGCTCCGCGCCCATCGTCTGCA
CCAGCTGGCCTTTGACACCTACCAGGAGTTTAGGCTGGAAGATGGCAGCCCCGGACTGGCAGATCTTC
AAGCAGACCTACAGCAAGTTCGACACAACTCACACAACGATGACGCACTACTCAAGAACTACGGGCTGC
TCTACTGCTTCAGGAAGGACATGGACAAGTTCGAGACATTCTGCGCATCGTGCAGTCCGCTCTGTGGA
GGCAGCTGTGGCTTC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:	>RG215961 representing NM_022561 Red=Cloning site Green=Tags(s)
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MATGSRTSLLAFGLLCLPWLQEGSAFPTIPLSRLFDNAMLRAHRLHQLAFDITYQEFRLEDGSPRTGQIF
KQTYSKFDTNSHNDALLKNYGLLYCFRKDMKVETFLRIVQCRSVEGSCGF

TRTRPLE - GFP Tag - V

Restriction Sites:	Sgfl-MluI
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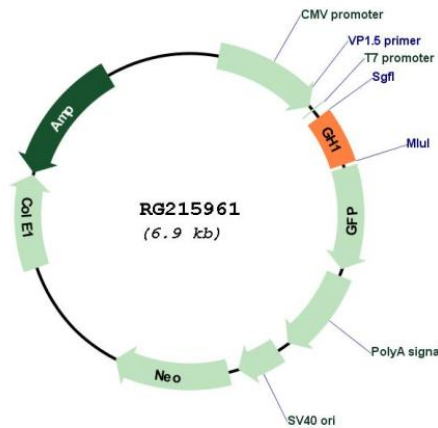


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Cloning Scheme:



Plasmid Map:



ACCN: NM_022561

ORF Size: 366 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:	<ol style="list-style-type: none">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_022561.2 , NP_072055.1
RefSeq Size:	537 bp
RefSeq ORF:	369 bp
Locus ID:	2688
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]