

Product datasheet for RG219794

OriGene Technologies, Inc.

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Growth Hormone (GH1) (NM_022562) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: Growth Hormone (GH1) (NM_022562) Human Tagged ORF Clone

Tag: TurboGFP

Symbol: GH1

Synonyms: GH; GH-N; GHN; hGH-N; IGHD1B

Mammalian Cell Neomycin

Selection:

Vector: pCMV6-AC-GFP (PS100010)

E. coli Selection: Ampicillin (100 ug/mL)

ORF Nucleotide >RG219794 representing NM_022562

Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

ATGGCTACAGAGGCTGGAAGATGGCAGCCCCCGGACTGGGCAGATCTTCAAGCAGACCTACAGCAAGTTC

GACACAAACTCACACAACGA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG219794 representing NM_022562

Red=Cloning site Green=Tags(s)

MATEAGRWQPPDWADLQADLQQVRHKLTQR

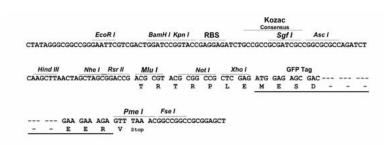
TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-Mlul

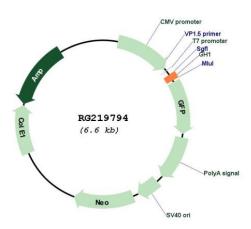


Cloning Scheme:





Plasmid Map:



ACCN: NM_022562

ORF Size: 90 bp

Growth Hormone (GH1) (NM_022562) Human Tagged ORF Clone - RG219794

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 022562.2, NP 072056.1

RefSeq Size: 376 bp
RefSeq ORF: 93 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]