

## Product datasheet for **SC316411**

### Growth hormone receptor (GHR) (NM\_000163) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Growth hormone receptor (GHR) (NM_000163) Human Untagged Clone
Tag:	Tag Free
Symbol:	Growth hormone receptor
Synonyms:	GHBP; GHIP
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_000163 edited  
 ATGGATCTCTGGCAGCTGCTGTTGACCTTGGCACTGGCAGGATCAAGTGATGCTTTTTCT  
 GGAAGTGAGGCCACAGCAGCTATCCTTAGCAGAGCACCCTGGAGTCTGCAAAGTGTAAAT  
 CCAGGCCATAAGACAAATTTCTTAAGGAGCCTAAATTCACCAAGTGCCGTTACCTGAG  
 CGAGAGACTTTTTCATGCCACTGGACAGATGAGGTTTCATCATGGTACAAAGAACCTAGGA  
 CCCATACAGCTGTTCTATACCAGAAGGAACACTCAAGAATGGACTCAAGAATGAAAGAA  
 TGCCCTGATTATGTTTTCTGCTGGGAAAAACAGCTGTTACTTTAATTCATCGTTTACCTCC  
 ATCTGGATACCTTATTGTATCAAGCTAACTAGCAATGGTGGTACAGTGGATGAAAAGTGT  
 TTCTCTGTTGATGAAATAGTGCAACCAGATCCACCCATTGCCCTCAACTGGACTTTACTG  
 AACGTCAGTTTAACTGGGATTCATGCAGATATCCAAGTGAGATGGGAAGCACCACGCAAT  
 GCAGATATTCAGAAAGGGTGGATGGTTCTGGAGTATGAACTTCAATACAAAGAAGTAAAT  
 GAAACTAAATGAAAAATGATGGACCCTATATTGACAACATCAGTTCAGTGTACTCATTG  
 AAAGTGGATAAGGAATATGAAGTGCCTGTGAGATCCAAACAACGAAACTCTGGAAATTAT  
 GCGCAGTTCAGTGAAGTCTCTATGTAACACTTCCTCAGATGAGCCAATTTACATGTGAA  
 GAAGATTTCTACTTTCCATGGCTCTTAATTATTATCTTTGGAATATTTGGGCTAACAGTG  
 ATGCTATTTGATTCTTATTTTCTAAACAGCAAAGGATTAATGCTGATTCTGCCCCCA  
 GTTCCAGTTCCAAAGATTAAGGAATCGATCCAGATCTCCTCAAGGAAGGAAAATTAGAG  
 GAGGTGAACACAATCTTAGCCATTCATGATAGCTATAAACCCGAATTCACAGTGTGAC  
 TCTTGGGTTGAATTTATTGAGCTAGATATTGATGAGCCAGATGAAAAGACTGAGGAATCA  
 GACACAGACAGACTTCTAAGCAGTGACCATGAGAAATCACATAGTAACCTAGGGGTGAAG  
 GATGGCGACTCTGGACGTACCAGCTGTTGTGAACCTGACATTCTGGAGACTGATTTCAAT  
 GCCAATGACATACATGAGGGTACCTCAGAGTTGCTCAGCCACAGAGGTTAAAAGGGGAA  
 GCAGATCTTTATGCCTTGACCAGAAGAATCAAATAACTCACCTTATCATGATGCTTGC  
 CCTGCTACTCAGCAGCCCAGTGTTATCCAAGCAGAGAAAAACAACCACACCCTTCTCT  
 ACTGAAGGAGCTGAGTCAACTACCAAGCTGCCATATTCAGCTAAGCAATCCAAGTTCA  
 CTGTCAAACATCGACTTTTATGCCCAGGTGAGCGACATTACACCAGCAGGTAGCGTGGTC  
 CTTTCCCCGGGCCAAAAGAATAAGGCAGGGATGTCCCAATGTGACATGCACCCGGAATG  
 GTCTCACTCTGCCAAGAAAACCTCCTTATGGACAATGCCTACTTCTGTGAGGCAGATGCC  
 AAAAAGTGCATCCCTGTGGCTCCTCACATCAAGGTTGAATCACACATACAGCCAAGCTTA  
 AACCAAGAGGACATTTACATCACCACAGAAAGCCTTACCCTGCTGCTGGGAGGCCTGGG  
 ACAGGAGAACATGTTCCAGGTTCTGAGATGCCTGTCCCAGACTATACCTCCATTCATATA  
 GTACAGTCCCCACAGGGCCTCACTCAATGCGACTGCCTTGCCCTTGCCCTGACAAAAGAG  
 TTTCTCTCATCATGTGGCTATGTGAGCACAGACCAACTGAACAAAATCATGCCTTAG

**Restriction Sites:** Please inquire  
**ACCN:** NM\_000163  
**Insert Size:** 1900 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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 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.

**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\\_000163.2](#), [NP\\_000154.1](#)

**RefSeq Size:** 4370 bp

**RefSeq ORF:** 1917 bp

**Locus ID:** 2690

**UniProt ID:** [P10912](#)

**Cytogenetics:** 5p13.1-p12

**Protein Families:** Druggable Genome, Transmembrane

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

**Gene Summary:**

This gene encodes a member of the type I cytokine receptor family, which is a transmembrane receptor for growth hormone. Binding of growth hormone to the receptor leads to receptor dimerization and the activation of an intra- and intercellular signal transduction pathway leading to growth. Mutations in this gene have been associated with Laron syndrome, also known as the growth hormone insensitivity syndrome (GHIS), a disorder characterized by short stature. In humans and rabbits, but not rodents, growth hormone binding protein (GHBP) is generated by proteolytic cleavage of the extracellular ligand-binding domain from the mature growth hormone receptor protein. Multiple alternatively spliced transcript variants have been found for this gene.[provided by RefSeq, Jun 2011]

Transcript Variant: This variant (1, also known as V2) and variants 3 through 9 encode the predominant protein (isoform 1). Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.