

## Product datasheet for **RC233036**

### Growth hormone receptor (GHR) (NM\_001242401) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Growth hormone receptor (GHR) (NM_001242401) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Growth hormone receptor
Synonyms:	GHBP; GHIP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-Myc-DDK (PS100007)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RC233036 representing NM\_001242401.  
 Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGCATCGCC
ATGGATCTCTGGCAGCTGCTGTTGACCTTGGCACTGGCAGGATCAAGTGATGCTTTTTCTGGAAGTGAG
GCCACAGCAGCTATCCTTAGCAGAGCACCTGGAGTCTGCAAAGTGTTAATCCAGGCCTAAAGACAAAT
TCTTCTAAGGAGCTAAATTCACCAAGTGCCGTTACCTGAGCGAGAGACTTTTTTCATGCCACTGGACA
GATGAGGTTTCATCATGGTACAAAGAACCTAGGACCCATACAGCTGTTCTATACCAGAAGGAACACTCAA
GAATGGACTCAAGAATGGAAAGAATGCCCTGATTATGTTTCTGCTGGGAAAAACAGCTGTTACTTTAAT
TCATCGTTTACCTCCATCTGGATACCTTATTGTATCAAGCTAACTAGCAATGGTGGTACAGTGGATGAA
AAGTGTCTCTGTTGATGAAATAGTGAACCAGATCCACCCATTGCCCTCAACTGGACTTTACTGAAC
GTCAGTTAACTGGGATTCATGCAGATATCCAAGTGAGATGGGAAGCACCACGCAATGCAGATATTCAG
AAAGGTGGATGGTTCTGGAGTATGAATTC AATACAAAGAAGTAAATGAACTAAATGGAAAATGATG
GACCCTATATTGACAACATCAGTTCAGTGTACTATTGAAAGTGGAATAAGGAATATGAAGTGCCTGTG
AGATCCAAACAACGAAACTCTGGA AATTATGGCGAGTTCAGTGAGGTGCTCTATGTAACACTTCCTCAG
ATGAGCCAATTTACATGTGAAGAAGATTTCTACTTTCCATGGCTCTTAATTATTATCTTTGGAATATTT
GGGCTAACAGTGATGCTATTTGTATTCTTATTTCTAAACAGCAAAGGATTA AAAATGCTGATTCTGCC
CCAGTTCAGTTCCAAAGATTAAGGAATCGATCCAGATCTCCTCAAGGAAGGAAAATTAGAGGAGGTG
AACACAATCTTAGCCATTCATGATAGCTATAAACCCGAATTCACAGTGATGACTCTTGGGTTGAATTT
ATTGAGCTAGATATTGATGAGCCAGATGAAAAGACTGAGGAATCAGACACAGACAGACTTCTAAGCAGT
GACCATGAGAAAACACATAGTAACCTAGGGTGAAGGATGGCGACTCTGGACGTACCAGCTGTTGTGAA
CCTGACATTCGGAGACTGATTTCAATGCCAATGACATACATGAGGTTACCTCAGAGTTGCTCAGCCA
CAGAGGTTAAAAGGGGAAGCAGATCTCTTATGCCTTGACCAGAAGAAATCAAATAACTCACTTATCAT
GATGCTTGCCCTGCTACTCAGCAGCCAGTGTTATCCAAGCAGAGAAAAACAACCAACCACTTCTCT
ACTGAAGGAGCTGAGTCAACTACCAAGCTGCCCATATTCAGCTAAGCAATCCAAGTTCAGTGTCAAAC
ATCGACTTTTATGCCAGGTGAGCGACATTACACCAGCAGGTAGCGTGGTCTTTCCCGGGCCAAAAG
AATAAGGCAGGGATGTCCAATGTGACATGCACCCGAAATGGTCTCACTCTGCCAAGAAAACCTCTCT
ATGGACAATGCCTACTTCTGTGAGGCAGATGCCAAAAGTGCATCCCTGTGGCTCCTCACATCAAGTT
GAATCACACATACAGCCAAGCTTAACCAAGAGGACATTTACATCACCACAGAAAGCCTTACCCTGCT
GCTGGGAGGCCTGGGACAGGAGAACATGTTCCAGTTCTGAGATGCCTGTCCAGACTATACCTCCATT
CATATAGTACAGTCCCCACAGGGCTCATACTCAATGCGACTGCCTTGCCCTTGCCCTGACAAAGATTT
CTCTCATCATGTGGCTATGTGAGCACAGACCAACTGAACAAAATCATGCCT
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
  
```

**Protein Sequence:**

>Peptide sequence encoded by RC233036  
 Blue=ORF Red=Cloning site Green=Tag(s)

```

MDLWQLLLTLALAGSSDAFSGSEATAAILSRAPWSLQSVNPGLKTNSSKEPKFTKCRSPERETF SCHWT
DEVHVGTKNLGPIQLFYRRNTQEWTQEWEKCPDYVSAGENSFCYFNSSFTSIWIPYCIKLT SNGGTVDE
KCFVDEIVQDPPIALNWTLLNVSLTGIHADIQVRWEAPRNADIQKGWMLVLELQYKEVNETKWKMM
DPILTTSVPVYSLKVDKEYEVRVRSKQRNSGNYGEFSEVLVYVLPQMSQFTCEEDFYFPWLLIIIFGIF
GLTVMLFVFLFSKQRIKMLILPPVVPKIKGIDPDLLKEGKLEEVNTILAIHDSYKPEFHSDDSWVEF
IELDIDEPDEKTEESDTRLLSSDHEKSHSNLGVKDGDSGRTSCCEPDILETDFNANDIHEGTSEVAQP
QRLKGEADLLCLDQKNQNSPYHDACPATQQPSVIAEKNKQPPLPTEGAESTHQAHIQLSNPSSLSN
IDFYAQVSDITPAGSVVLSPGQKNKAGMSQCDMHPMVSLCQENFLMDNAYFCEADAKKCPVAPHIKV
ESHIQPSLNQEDIYITTESLTTAAGRPGTGEHVPGSEMPVPDYTSIHIVQSPQGLILNATALPLPDKF
LSSCGYVSTDQLNKIMP
TRTRPLEQKLI SEEDLAANDILDYKDDDDKV
  
```

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**



**ACCN:** NM\_001242401

**ORF Size:** 1914 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 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).

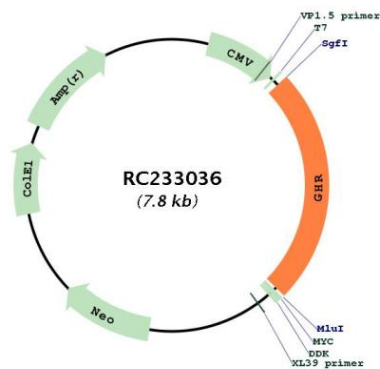
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
  2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
  3. Close the tube and incubate for 10 minutes at room temperature.
  4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the 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 Size:** 4522 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  
**MW:** 71.5 kDa

**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]

**Product images:**



Circular map for RC233036