

## Product datasheet for **RC233037**

### Growth hormone receptor (GHR) (NM\_001242402) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Growth hormone receptor (GHR) (NM_001242402) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Growth hormone receptor
Synonyms:	GHBP; GHIP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC233037 representing NM\_001242402.  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGGATCTCTGGCAGCTGCTGTTGACCTTGGCACTGGCAGGATCAAGTGATGCTTTTTCTGGAAGTGAG
GCCACAGCAGCTATCCTTAGCAGAGCACCTGGAGTCTGCAAAGTGTTAATCCAGGCCTAAAGACAAAT
TCTTCTAAGGAGCTAAATTCACCAAGTGCCGTTACCTGAGCGAGAGACTTTTTTATGCCACTGGACA
GATGAGGTTTCATCATGGTACAAAGAACCTAGGACCCATACAGCTGTTCTATACCAGAAGGAACACTCAA
GAATGGACTCAAGAATGGAAAGAATGCCCTGATTATGTTTCTGCTGGGAAAAACAGCTGTTACTTTAAT
TCATCGTTTACCTCCATCTGGATACCTTATTGTATCAAGCTAACTAGCAATGGTGGTACAGTGGATGAA
AAGTGTCTCTGTTGATGAAATAGTGAACCAGATCCACCCATTGCCCTCAACTGGACTTTACTGAAC
GTCAGTTAACTGGGATTCATGCAGATATCCAAGTGAGATGGGAAGCACCACGCAATGCAGATATTCAG
AAAGGTGGATGGTTCTGGAGTATGAATTC AATACAAAGAAGTAAATGAACTAAATGGAAAATGATG
GACCCTATATTGACAACATCAGTTCAGTGTACTATTGAAAGTGGAATAAGGAATATGAAGTGCCTGTG
AGATCCAAACAACGAAACTCTGGAATATGGCGAGTTCAGTGAGGTGCTCTATGTAACACTTCCTCAG
ATGAGCCAATTTACATGTGAAGAAGATTTCTACTTTCCATGGCTCTTAATTATTATCTTTGGAATATTT
GGGCTAACAGTGATGCTATTTGTATTCTTATTTCTAAACAGCAAAGGATTAATAAGTCTGATTCTGCCC
CCAGTTCAGTTCCAAAGATTAAGGAATCGATCCAGATCTCCTCAAGGAAGGAAAATTAGAGGAGGTG
AACACAATCTTAGCCATTCATGATAGCTATAAACCCGAATTCACAGTGTACTCTTGGGTTGAATTT
ATTGAGCTAGATATTGATGAGCCAGATGAAAAGACTGAGGAATCAGACACAGACAGACTTCTAAGCAGT
GACCATGAGAAAACACATAGTAACCTAGGGTGAAGGATGGCGACTCTGGACGTACCAGCTGTTGTGAA
CCTGACATTCGGAGACTGATTTCAATGCCAATGACATACATGAGGATACCTCAGAGTTGCTCAGCCA
CAGAGGTTAAAAGGGGAAGCAGATCTCTTATGCCTTGACCAGAAGAAATCAAATAACTCAGCTTATCAT
GATGCTTGCCCTGCTACTCAGCAGCCAGTGTTATCCAAGCAGAGAAAAACAACCAACCACTTCTCT
ACTGAAGGAGCTGAGTCAACTACCAAGCTGCCCATATTCAGCTAAGCAATCCAAGTTCAGTGTCAAAC
ATCGACTTTTATGCCAGGTGAGCGACATTACACCAGCAGGTAGCGTGGTCTTTCCCGGGCCAAAAG
AATAAGGCAGGGATGTCCAATGTGACATGCACCCGAAATGGTCTCACTCTGCCAAGAAAATCTCTT
ATGGACAATGCCTACTTCTGTGAGGCAGATGCCAAAAGTGCATCCCTGTGGCTCCTCACATCAAGTT
GAATCACACATACAGCCAAGCTTAACCAAGAGGACATTTACATCACCACAGAAAGCCTTACCCTGCT
GCTGGGAGGCCTGGGACAGGAGAACATGTTCCAGTTCTGAGATGCCTGTCCAGACTATACCTCCATT
CATATAGTACAGTCCCCACAGGGCTCATACTCAATGCGACTGCCTTGCCCTTGCCCTGACAAAGATTT
CTCTCATCATGTGGCTATGTGAGCACAGACCAACTGAACAAAATCATGCCT
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```

**Protein Sequence:**

>Peptide sequence encoded by RC233037  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MDLWQLLLTLALAGSSDAFSGSEATAAILSRAPWSLQSVNPGLKTNSSKEPKFTKCRSPERETF SCHWT
DEVVHGTKNLGP IQLFYTRRNTQEWTQEWEKCPDYVSAGENS CYFNSSFTSIWIPYCIKLSNGGTVDE
KCF SVDEIVQDPPIALNWTLLNVSLTGIHADIQVRWEAPRNADIQKGWMLVLELYQYKEVNETKWKMM
DPILTTSPVYSLKVDKEYEVRVRSKQRNSGNYGEFSEVLVYVLPQMSQFTCEEDFYFPWLLIIIFGIF
GLTVMLFVFLFSKQRIKMLILPPVPVKIKGIDPDLLKEGKLEEVNTILAIHDSYKPEFHSDDSWVEF
IELDIDEPDEKTEESDTRLLSSDHEKSHSNLGVKDGDSGRTSCCEPDIETDFNANDIHEGTSEVAQP
QRLKGEADLLCLDQKNQNNSPYHDACPATQQPSV IQAEKNKQPPLPTEGAESTHQAAHIQLSNPSSLSN
IDFYAQVSDITPAGSVVLSPGQKNKAGMSQCDMHPMVSLCQENFLMDNAYFCEADAKKCI PVAPHIKV
ESHIQPSLNQEDIYITTESLTTAAGRPGTGEHVPGSEMPVPDYTSIHIVQSPQGLILNATALPLPDKF
LSSCGYVSTDQLNKIMP
TRTRPLEQKLISEEDLAANDILDYKDDDDKV
```

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001242402

**ORF Size:** 1914 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 Size:** 4491 bp

**RefSeq ORF:** 1917 bp

**Locus ID:** 2690

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

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

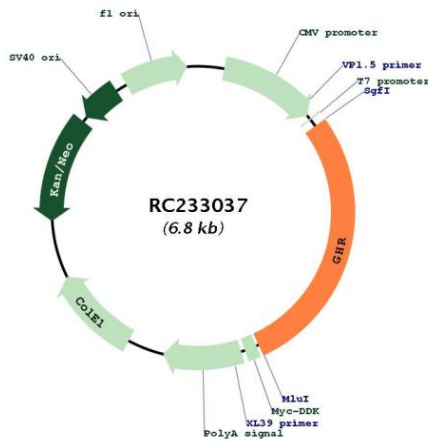
**Protein Families:** Druggable Genome, Transmembrane

**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 RC233037