

## Product datasheet for **RC233016**

### Growth hormone receptor (GHR) (NM\_001242460) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Growth hormone receptor (GHR) (NM_001242460) 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:**

>RC233016 representing NM\_001242460  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGATCTCTGGCAGCTGCTGTTGACCTTGGCACTGGCAGGATCAAGTATGCTTTTTCTGGAAGTGAAG  
 ATTCTTCTAAGGAGCCTAAATTCACCAAGTGCCGTTACCTGAGCGAGAGACTTTTTTCATGCCACTGGAC  
 AGATGAGGTTTCATCATGGTACAAAGAACCTAGGACCCATACAGCTGTTCTATACCAGAAGGAACACTCAA  
 GAATGGACTCAAGAATGGAAAGAATGCCCTGATTATGTTTCTGCTGGGAAAAACAGCTGTTACTTTAATT  
 CATCGTTTACCTCCATCTGGATACCTTATTGTATCAAGCTAACTAGCAATGGTGGTACAGTGGATGAAAA  
 GTGTTTCTCTGTTGATGAAATAGTGAACCAGATCCACCCATTGCCCTCAACTGGACTTTACTGAACGTC  
 AGTTTAACTGGGATTCATGCAGATATCCAAGTGAAGTGGGAAAGCACCACGCAATGCAGATATTCAGAAAG  
 GATGGATGGTTCTGGAGTATGAACCTCAATACAAAGAAGTAAATGAACTAAATGAAAAATGATGGACCC  
 TATATTGACAACATCAGTCCAGTGTACTATTGAAAGTGGATAAGGAATATGAAGTGCCTGTGAGATCC  
 AAACAACGAAACTCTGGAATATGCGCAGTTCAGTGGAGTGTCTATGTAACTTCTCAGATGAGCC  
 AATTTACATGTGAAGAAGATTTCTACTTCCATGGCTCTTAATTATTATCTTTGGAATATTTGGGCTAAC  
 AGTGATGCTATTTGTATTCTATTTTCTAAACAGCAAAGGATTAATAATGCTGATTCTGCCCCAGTTCCA  
 GTTCCAAAGATTAAGGAATCGATCCAGATCTCCTCAAGGAAGGAAAAATTAGAGGAGGTGAACACAATCT  
 TAGCCATTCATGATAGCTATAAACCCGAATTCACAGTGTACTCTTGGGTTGAATTTATTGAGCTAGA  
 TATTGATGAGCCAGATGAAAAGACTGAGGAATCAGACACAGACAGACTTCTAAGCAGTGACCATGAGAAA  
 TCACATAGTAACCTAGGGGTGAAGGATGGCGACTCTGGACGTACCAGCTGTTGTGAACCTGACATTCTGG  
 AGACTGATTTCAATGCCAATGACATACATGAGGGTACCTCAGAGGTTGCTCAGCCACAGAGGTTAAAAGG  
 GGAAGCAGATCTTTATGCCTTGACCAGAAGAATCAAAAATAACTACCTTATCATGATGCTTGGCCTGCT  
 ACTCAGCAGCCAGTGTTATCCAAGCAGAGAAAAACAAACCACAACCACTTCTACTGAAGGAGCTGAGT  
 CAACTACCAAGCTGCCATATTCAGCTAAGCAATCCAAGTTCAGTGTCAAAACATCGACTTTTATGCCCA  
 GGTGAGCGACATTACACCAGCAGGTAGTGTGCTCTTCCCGGGCCAAAAGAATAAGGCAGGGATGTCC  
 CAATGTGACATGCACCCGAAATGGTCTCACTCTGCCAAGAAAACCTTCTTATGGACAATGCCTACTTCT  
 GTGAGGCAGATGCCAAAAGTGCATCCCTGTGGCTCCTCACATCAAGGTTGAATCACACATACAGCCAAG  
 CTTAAACCAAGAGGACATTTACATCACCACAGAAAGCCTTACCCTGCTGCTGGGAGCCTGGGACAGGA  
 GAACATGTTCCAGGTTCTGAGATGCCTGTCCAGACTATACCTCCATTATATAGTACAGTCCCCACAGG  
 GCCTCATACTCAATGCGACTGCCTTGCCTTGCCTGACAAAGAGTTTCTCTCATCATGTGGCTATGTGAG  
 CACAGACCAACTGAACAAAATCATGCCT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC233016 representing NM\_001242460  
 Red=Cloning site Green=Tags(s)

MDLWQLLLTLALAGSSDAFSGSEDSSKEPKFTKCRSPERETF SCHWTDVHVGTKNLGPIQLFYTRRNTQ  
 EWTQEWKECPDYVSAGENSICYFNSSFTSIWIPIYCIKLSNGGTVDEKCFVDEIVQDPPIALNWTLLNV  
 SLTGIHADIQVRWEAPRNADIQKGMVLEYELQYKEVNETKWKMMDPILTTSVPVYSLKVDKEYEVRVRS  
 KQRNSGNYGEFSEVLVYVTLPMQSQFTCEEDFYFPWLLIIIFGIFGLTVMLFVFLFSKQRIKMLILPPVP  
 VPKIKGIDPDLLEKGLKEEVNTILAIHDSYKPEFHSDDSWVEFIELDIDEPDEKTEESDTRLLSSDHEK  
 SHSNLGVKDGDSGRTSCCEPDILETDFNANDIHEGTSEVAQPQRKGEADLLCLDQKNQNNSPYHDACPA  
 TQQPSVIQAEKNKQPLPTEGAESTHQAHIQLSNPSSLNIDFYAQVSDITPAGSVVLSPGQKNKAGMS  
 QCDMHPMVSQCENFLMDNAYFCEADAKKIPVAPHIKVESHIQPSLNQEDIYITTESLTTAAGRPGTG  
 EHVPGSEMPVPDYTSIHIVQSPQGLILNATALPLPDKFELSSCGYVSTDQLNKIMP

**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM\_001242460

ORF Size: 1848 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: [NM\\_001242460.1](#), [NP\\_001229389.1](#)

RefSeq Size: 4316 bp

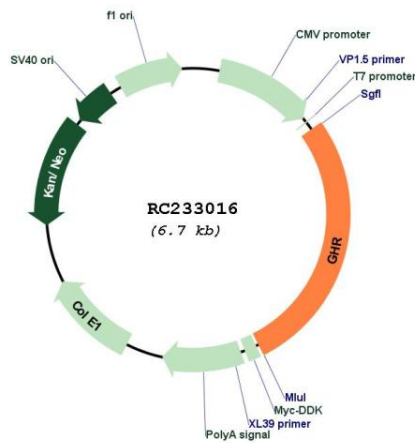
RefSeq ORF: 1851 bp

Locus ID: 2690

UniProt ID: [P10912](#)

<b>Cytogenetics:</b>	5p13.1-p12
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Cytokine-cytokine receptor interaction, Jak-STAT signaling pathway, Neuroactive ligand-receptor interaction
<b>MW:</b>	69.7 kDa
<b>Gene Summary:</b>	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 RC233016