

Product datasheet for **RC218710**

Growth hormone receptor (GHR) (NM_000163) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Growth hormone receptor (GHR) (NM_000163) 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:

>RC218710 representing NM_000163.
 Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTGACTG
GATCCGGTACCGAGGAGATCTGCCGCCCGGATCGCC
ATGGATCTCTGGCAGCTGCTGTTGACCTTGGCACTGGCAGGATCAAGTGATGCTTTTTCTGGAAGTGAG
GCCACAGCAGCTATCCTTAGCAGAGCACCTGGAGTCTGCAAAGTGTTAATCCAGGCCTAAAGACAAAT
TCTTCTAAGGAGCTAAATTCACCAAGTGCCGTTACCTGAGCGAGAGACTTTTTTCATGCCACTGGACA
GATGAGGTTTCATCATGGTACAAAGAACCTAGGACCCATACAGCTGTTCTATACCAGAAGGAACACTCAA
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TCATCGTTTACCTCCATCTGGATACCTTATTGTATCAAGCTAACTAGCAATGGTGGTACAGTGGATGAA
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GTCAGTTAACTGGGATTCATGCAGATATCCAAGTGAGATGGGAAGCACCACGCAATGCAGATATTCAG
AAAGGTGGATGGTTCTGGAGTATGAATTC AATACAAAGAAGTAAATGAACTAAATGGAAAATGATG
GACCCTATATTGACAACATCAGTTCAGTGTACTATTGAAAGTGGAATAAGGAATATGAAGTGCCTGTG
AGATCCAAACAACGAAACTCTGGAAATTATGGCGAGTTCAGTGAGGTGCTCTATGTAACACTTCCTCAG
ATGAGCCAATTTACATGTGAAGAAGATTTCTACTTTCCATGGCTCTTAATTATTATCTTTGGAATATTT
GGGCTAACAGTGATGCTATTTGTATTCTTATTTCTAAACAGCAAAGGATTAATAAGTCTGATTCTGCC
CCAGTTCAGTTCCAAAGATTAAGGAATCGATCCAGATCTCCTCAAGGAAGGAAAATTAGAGGAGGTG
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ATTGAGCTAGATATTGATGAGCCAGATGAAAAGACTGAGGAATCAGACACAGACAGACTTCTAAGCAGT
GACCATGAGAAATCACATAGTAACCTAGGGTGAAGGATGGCGACTCTGGACGTACCAGCTGTTGTGAA
CCTGACATTCGGAGACTGATTTCAATGCCAATGACATACATGAGGTTACCTCAGAGTTGCTCAGCCA
CAGAGGTTAAAAGGGGAAGCAGATCTCTTATGCCTTGACCAGAAGAAATCAAATAACTCACTTATCAT
GATGCTTGCCCTGCTACTCAGCAGCCAGTGTTATCCAAGCAGAGAAAAACAACCAACCACTTCTCT
ACTGAAGGAGCTGAGTCAACTACCAAGCTGCCCATATTCAGCTAAGCAATCCAAGTTCAGTGTCAAAC
ATCGACTTTTATGCCAGGTGAGCGACATTACACCAGCAGGTAGCGTGGTCTTTCCCGGGCCAAAAG
AATAAGGCAGGGATGTCCAATGTGACATGCACCCGAAATGGTCTCACTCTGCCAAGAAAATCTCCTT
ATGGACAATGCCTACTTCTGTGAGGCAGATGCCAAAAGTGCATCCCTGTGGCTCCTCACATCAAGTT
GAATCACACATACAGCCAAGCTTAAACCAAGAGGACATTTACATCACCACAGAAAGCCTTACCCTGCT
GCTGGGAGGCCTGGGACAGGAGAACATGTTCCAGTTCTGAGATGCCTGTCCAGACTATACCTCCATT
CATATAGTACAGTCCCCACAGGGCTCATACTCAATGCGACTGCCTTGCCCTTGCCCTGACAAAGATTT
CTCTCATCATGTGGCTATGTGAGCACAGACCAACTGAACAAAATCATGCCT
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
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Protein Sequence:

>Peptide sequence encoded by RC218710
 Blue=ORF Red=Cloning site Green=Tag(s)

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MDLWQLLLTLALAGSSDAFSGSEATAAILSRAPWSLQSVNPGLKTNSSKEPKFTKCRSPERETF SCHWT
DEVHVGTKNLGPIQLFYRRNTQEWTEWKECPDYVSAGENSFCYFNSSFTSIWIPYCIKLSNGGTVDE
KCFVDEIVQDPPIALNWTLLNVSLTGIHADIQVRWEAPRNADIQKGMVLEVEYQYKEVNETKWKMM
DPILTTSVPVYSLKVDKEYEVRVRSKQRNSGNYGEFSEVLVYVLPQMSQFTCEEDFYFPWLLIIIFGIF
GLTVMLFVFLFSKQRIKMLILPPVPVKIKGIDPDLLKEGKLEEVNTILAIHDSYKPEFHSDDSWVEF
IELDIDEPDEKTEESDTRLLSSDHEKSHSNLGVKDGDSGRTSCCEPDILETDFNANDIHEGTSEVAQP
QRLKGEADLLCLDQKNQNSPYHDACPATQQPSVIAEKKNKQPLPTEGAESTHQAHIQLSNPSSLSN
IDFYAQVSDITPAGSVVLSPGQKNKAGMSQCDMHPMVSLCQENFLMDNAYFCEADAKKCI PVAPHIKV
ESHIQPSLNQEDIYITTESLTTAAGRPGTGEHVPGSEMPVPDYTSIHIVQSPQGLILNATALPLPKFE
LSSCGYVSTDQLNKIMP
TRTRPLEQKLISEEDLAANDILDYKDDDDKV
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Restriction Sites:

Sgfl-Mlul

Cloning Scheme:



ACCN: NM_000163

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 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](#)

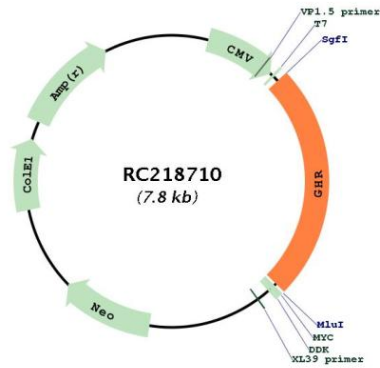
OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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).

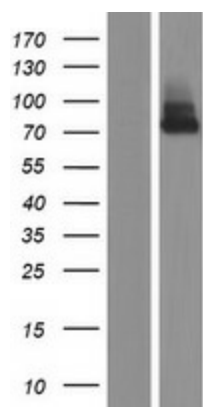
- Reconstitution Method:**
1. Centrifuge at 5,000xg for 5min.
 2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
 3. Close the tube and incubate for 10 minutes at room temperature.
 4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the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

Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
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
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 RC218710



Western blot validation of overexpression lysate (Cat# [LY424890]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC218710 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).