

Product datasheet for **RG233041**

Growth hormone receptor (GHR) (NM_001242406) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Growth hormone receptor (GHR) (NM_001242406) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	GHR
Synonyms:	GHBP; GHIP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG233041 representing NM_001242406
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCCGCGATCGCC

ATGGATCTCTGGCAGCTGCTGTTGACCTTGGCACTGGCAGGATCAAGTATGCTTTTTCTGGAAGTGAAG
 CCACAGCAGCTATCCTTAGCAGAGCACCTGGAGTCTGCAAAGTGTAAATCCAGGCCTAAAGACAAATTC
 TTCTAAGGAGCCTAAATTCACCAAGTGCCTTACCTGAGCGAGAGACTTTTTTCATGCCACTGGACAGAT
 GAGGTTTATCATGGTACAAAGAACCTAGGACCCATACAGCTGTTCTATACCAGAAGGAACACTCAAGAAT
 GGACTCAAGAATGGAAAGAATGCCCTGATTATGTTTCTGCTGGGAAAACAGCTGTTACTTTAATTCATC
 GTTTACCTCCATCTGGATACCTTATTGTATCAAGCTAACTAGCAATGGTGGTACAGTGGATGAAAAGTGT
 TTCTCTGTTGATGAAATAGTGAACCAGATCCACCCATTGCCCTCACTGGACTTTACTGAACGTCAGTT
 TAACTGGGATTCATGCAGATATCCAAGTGAAGTGGGAAGCACCAAGTGCAGATATTCAGAAAGGATG
 GATGGTTCTGGAGTATGAACTTCAATACAAAGAAGTAAATGAACTAAATGGAAAATGATGGACCCTATA
 TTGACAACATCAGTTCAGTGTACTCATTGAAAGTGGATAAGGAATATGAAGTGCCTGTGAGATCCAAAC
 AACGAAACTCTGGAATTTATGGCGAGTTCACTGAGGTGCTCTATGTAACACTTCCTCAGATGAGCCAATT
 TACATGTGAAGAAGATTTCTACTTTCCATGGCTCTTAATTATTATCTTTGGAATATTTGGGCTAACAGTG
 ATGCTATTTGTATTCTTATTTTCTAAACAGCAAAGGATTAATGCTGATTCTGCCCCAGTTCCAGTTC
 CAAAGATTAAGGAATCGATCCAGATCTCCTCAAGGAAGGAAAATTAGAGGAGGTGAACACAATCTTAGC
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 GATGAGCCAGATGAAAAGACTGAGGAATCAGACACAGACAGACTTCTAAGCAGTGACCATGAGAAATCAC
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 GCAGATCTCTTATGCCTTGACCAGAAGAATCAAAATAACTCACCTTATCATGATGCTTGCCTGCTACTC
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 TCACCAAGCTGCCATATTCAGTAAGCAATCCAAGTTCCTGTCAAACATCGACTTTTATGCCAGGTG
 AGCGACATTACACCAGCAGGTAGTGTGGTCTTTCCCGGGCCAAAAGAATAAGGCAGGGATGTCCCAAT
 GTGACATGCACCCGAAATGGTCTCACTCTGCCAAGAAAATTCCTTATGGACAATGCCTACTTCTGTGA
 GGCAGATGCCAAAAGTGCATCCCTGTGGTCTCCTCACATCAAGGTTGAATCACACATACAGCCAAGCTTA
 AACCAAGAGGACATTTACATCACACAGAAAGCCTTACCCTGCTGCTGGGAGGCCTGGGACAGGAGAAC
 ATGTTCCAGGTTCTGAGATGCCTGTCCCAGACTATACCTCCATTATAGTACAGTCCCACAGGGCCT
 CATACTCAATGCGACTGCCTTGCCTTGCCTGACAAAGAGTTTCTCTCATCATGTGGCTATGTGAGCACA
 GACCAACTGAACAAAATCATGCCT

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>RG233041 representing NM_001242406
 Red=Cloning site Green=Tags(s)

MDLWQLLLTLALAGSSDAFSGSEATAAILSRAPWSLQSVNPLKTNSSKEPKFTKCRSPERETF SCHWTD
 EVHHGTKNLGPIQLFYTRRNTQEWTEWKECPDYVSAGENSICYFNSSFTSIWIPYCIKLT SNGGTVDEKC
 FSVDEIVQPDPPIALNWTLLNVSLTGIHADIQVRWEAPRNADIQKGMVLEYELQYKEVNETKWKMMMPI
 LTT SVPVYSLKVDKEYEVRVRSKQRNSGNYGEFSEVLVYVTL PQMSQFTCEEDFYFPWLLIIIFGIFGLTV
 MLFVFLFSKQRIKMLILPPVPVKIKGIDPDLLKEGKLEEVNTILAIHDSYKPEFHSSD SWVEF IELDI
 DEPDEKTEESDTRLLSSDHEKSHSNLGVKDGDSGRTSCEPDILETFNANDIHEGTSEVAQPQR LKGE
 ADLLCLDQKNQNNSPYHDACPATQQPSVIAEKPKPQLPTEGAESTHQAAHIQLSNPSSL SNIDFYAQV
 SDITPAGSVVLSPGQKNKAGMSQCDMHPMVSLCQENFLMDNAYFCEADAKKICIPVAPHIKVESHIQPSL
 NQEDIYITTESLTTAAGRPGTGEHVPGSEMPVPDYTSIHIVQSPQGLILNATALPLPDKFLSSCGYVST
 DQLNKIMP

TRTRPLE - GFP Tag - V

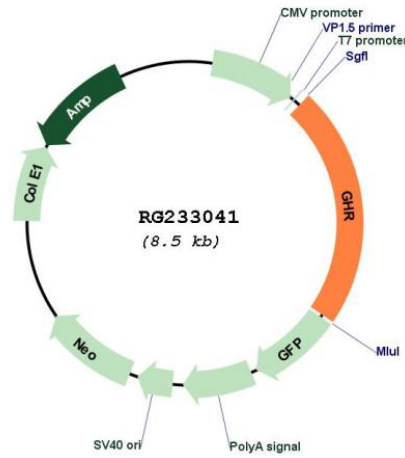
Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_001242406

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:	<ol style="list-style-type: none"> 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_001242406.2 , NP_001229335.1
RefSeq Size:	4785 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]