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Product datasheet for RC204744

GH2 (NM_002059) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GH2 (NM_002059) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GH2
Synonyms:	GH-V; GHB2; GHL; GHV; hGH-V
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC204744 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCTGCAGGCTCCCGGACGTCCCTGCTCCTGGCTTTTGGCCTGCTCTGCCTGTCCTGGCTTCAAGAGG
GCAGTGCCTTCCCAACCATTCCCTTATCCAGGCTTTTTGACAACGCTATGCTCCGCGCCCGTCGCCTGTA
CCAGCTGGCATATGACACCTATCAGGAGTTTGAAGAAGCCTATATCCTGAAGGAGCAGAAGTATTCATTC
CTGCAGAACCCCCAGACCTCCCTCTGCTTCTCAGAGTCTATTCCAACACCTTCCAACAGGGTGAAAACGC
AGCAGAAATCTAACCTAGAGCTGCTCCGCATCTCCCTGCTGCTCATCCAGTCATGGCTGGAGCCCGTGCA
GCTCCTCAGGAGCGTCTTCGCCAACAGCCTGGTGTATGGCGCCTCGGACAGCAACGTCTATCGCCACCTG
AAGGACCTAGAGGAAGGCATCCAAACGCTGATGTGGAGGCTGGAAGATGGCAGCCCCCGGACTGGGCAGA
TCTTCAATCAGTCCTACAGCAAGTTTGACACAAAATCGCACAACGATGACGCACTGCTCAAGAACTACGG
GCTGCTCTACTGCTTCAGGAAGGACATGGACAAGGTCGAGACATTCCTGCGCATCGTGCAGTGCCGCTCT
GTGGAGGGCAGCTGTGGCTTC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

>RC204744 protein sequence
Red=Cloning site Green=Tags(s)

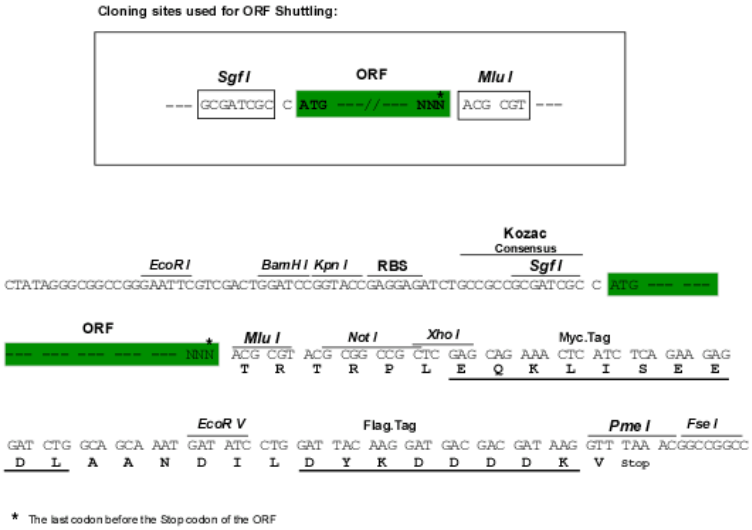
MAAGSRTSLLLAFGLLCLSWLQEGSAFPTIPLSRLFDNAMLRARRLYQLAYDTYQEFEEAYILKEQKYSF
LQNPQTSLCFSESIPTPSNRVKTQQKSNLELLRISLLLIQSWLEPVQLLRSVFANSLVYGASDSNVYRHL
KDLEEGIQTLMWRLEDGSPRTGQIFNQSYSKFDTKSHNDDALLKNYGLLYCFRKDMDKVETFLRIVQCRS
VEGSCGF

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6438_g11.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_002059

ORF Size: 651 bp

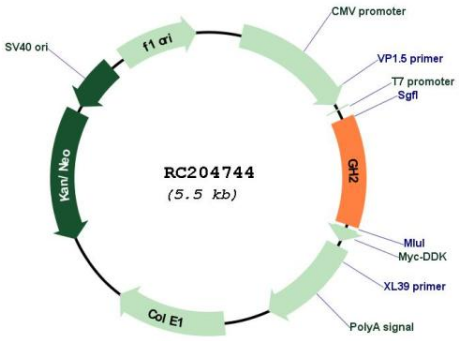
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.

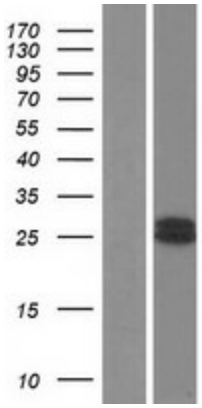
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_002059.5
RefSeq Size:	921 bp
RefSeq ORF:	654 bp
Locus ID:	2689
UniProt ID:	P01242
Cytogenetics:	17q23.3
Domains:	hormone
Protein Families:	Druggable Genome, Secreted Protein
Protein Pathways:	Cytokine-cytokine receptor interaction, Jak-STAT signaling pathway, Neuroactive ligand-receptor interaction
MW:	25 kDa
Gene Summary:	The protein encoded by this gene is a member of the somatotropin/prolactin family of hormones which play an important role in growth control. The gene, along with four other related genes, is located at the growth hormone locus on chromosome 17 where they are interspersed in the same transcriptional orientation; an arrangement which is thought to have evolved by a series of gene duplications. The five genes share a remarkably high degree of sequence identity. Alternative splicing generates additional isoforms of each of the five growth hormones, leading to further diversity and potential for specialization. As in the case of its pituitary counterpart, growth hormone 1, the predominant isoform of this particular family member shows similar somatogenic activity, with reduced lactogenic activity. Mutations in this gene lead to placental growth hormone/lactogen deficiency. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC204744



Western blot validation of overexpression lysate (Cat# [LY411625]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC218142] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).