

## Product datasheet for SC301728

### GNRHR (NM\_001012763) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GNRHR (NM_001012763) Human Untagged Clone
Tag:	Tag Free
Symbol:	GNRHR
Synonyms:	GNRHR1; GRHR; HH7; LHRHR; LRHR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC301728 representing NM_001012763. Blue=Insert sequence Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGAATTCGTCGACTG  
 GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC  
 ATGGCAACAGTGCCTCTCCTGAACAGAATCAAAATCACTGTTCAGCCATCAACAACAGCATCCCACTG  
 ATGCAGGGCAACCTCCCCACTCTGACCTTGTCTGGAAAGATCCGAGTGACGGTTACTTTCTCTTTT  
 CTGCTCTCTGCGACCTTTAATGCTTCTTTCTTGTGAACTTCAGAAGTGGACACAGAAGAAAGAGAAA  
 GGGAAAAAGCTCTCAAGAATGAAGCTGCTCTTAAACATCTGACCTTAGCCAACCTGTTGGAGACTCTG  
 ATTGTCATGCCACTGGATGGGATGTGGAACATTACAGTCCAATGGTATGCTGGAGAGTTACTCTGCAAA  
 GTTCTCAGTTATCTAAAGCTTTTCTCCATGTATGCCCCAGCCTTCATGATGGTGGTGATCAGCCTGGAC  
 CGCTCCCTGGCTATCACGAGGCCCTAGCTTTGAAAAGCAACAGCAAAGTCGGACAGTCCATGGTTGGC  
 CTGGCCTGGATCCTCAGTAGTGTCTTTGCAGGACCACAGCTGCCTCTTCATCATCCCTCTTTTCATCAT  
 GCTGATCTGCAATGCAAAAATCATCTTCACCCTGACACGGGTCCTTCATCAGGACCCCCACGAACTACA  
 ACTGAATCAGTCCAAGAACAATATACCAAGAGCACGGCTGAAGACTCTAAAAATGACGGTTGCATTTGC  
 CACTTCATTTACTGTCTGCTGGACTCCCTACTATGTCTAGGAATTTGGTATTGGTTGA  
 ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT  
 TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC

Restriction Sites:	SgfI-MluI
ACCN:	NM_001012763
Insert Size:	750 bp


[View online »](#)

<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<u><a href="#">NM_001012763.1</a></u>
<b>RefSeq Size:</b>	5715 bp
<b>RefSeq ORF:</b>	750 bp
<b>Locus ID:</b>	2798
<b>UniProt ID:</b>	<u><a href="#">P30968</a></u>
<b>Cytogenetics:</b>	4q13.2
<b>Protein Families:</b>	Druggable Genome, GPCR, Transmembrane
<b>Protein Pathways:</b>	GnRH signaling pathway, Neuroactive ligand-receptor interaction
<b>MW:</b>	27.7 kDa

**Gene Summary:**

This gene encodes the receptor for type 1 gonadotropin-releasing hormone. This receptor is a member of the seven-transmembrane, G-protein coupled receptor (GPCR) family. It is expressed on the surface of pituitary gonadotrope cells as well as lymphocytes, breast, ovary, and prostate. Following binding of gonadotropin-releasing hormone, the receptor associates with G-proteins that activate a phosphatidylinositol-calcium second messenger system. Activation of the receptor ultimately causes the release of gonadotropic luteinizing hormone (LH) and follicle stimulating hormone (FSH). Defects in this gene are a cause of hypogonadotropic hypogonadism (HH). Alternative splicing results in multiple transcript variants encoding different isoforms. More than 18 transcription initiation sites in the 5' region and multiple polyA signals in the 3' region have been identified for this gene. [provided by RefSeq, Jul 2008]

Transcript Variant: This variant (2) uses an alternate splice site in the coding region, compared to variant 1, that results in a frameshift. It encodes isoform 2 which has a shorter and distinct C-terminus compared to isoform 1. Isoform 2 may act as an inhibitor of gonadotropin-releasing hormone receptor signaling.