

## Product datasheet for **SC307152**

### **GNRH2 (NM\_178331) Human Untagged Clone**

#### **Product data:**

<b>Product Type:</b>	Expression Plasmids
<b>Product Name:</b>	GNRH2 (NM_178331) Human Untagged Clone
<b>Tag:</b>	Tag Free
<b>Symbol:</b>	GNRH2
<b>Synonyms:</b>	GnRH-II; LH-RHII
<b>Vector:</b>	<u>pCMV6 series</u>
<b>Fully Sequenced ORF:</b>	>NCBI ORF sequence for NM_178331, the custom clone sequence may differ by one or more nucleotides ATGCCAGCTCCAGGCGAGGCCTCCTGCTCCTGCTGCTGCTGACTGCCACCTTGGACCC TCAGAGGCTCAGCACTGGTCCCATGGCTGGTACCCTGGAGGAAAGCGAGCCCTCAGCTCA GCCCAGGATCCCCAGAATGCCCTTAGGCCCCAGCAGGCAGCCAGTCCAGACTGCCCAT GGCCTCCCAAGTGATGCCCTGGCTCCCCTGGACGACAGCATGCCCTGGGAGGGCAGGACC ACGGCCAGTGGTCCCTTACAGGAAGCGACACCTGGCACGGACACTGCTGACCGCAGCC CGAGAGCCCCGCCCGCCCGCCATCCTCCAATAAAGTGTGA
<b>Restriction Sites:</b>	Please inquire
<b>ACCN:</b>	NM_178331
<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).



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**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\\_178331.1](#), [NP\\_847901.1](#)

**RefSeq Size:** 402 bp

**RefSeq ORF:** 342 bp

**Locus ID:** 2797

**UniProt ID:** [O43555](#)

**Cytogenetics:** 20p13

**Protein Families:** Druggable Genome, Secreted Protein

**Protein Pathways:** GnRH signaling pathway

**Gene Summary:** This gene is a member of the gonadotropin-releasing hormone (GnRH) gene family. Proteins encoded by members of this gene family are proteolytically cleaved to form neuropeptides which, in part, regulate reproductive functions by stimulating the production and release of the gonadotropins follicle-stimulating hormone (FSH) and luteinizing hormone (LH). The human GNRH2 gene is predicted to encode a preproprotein from which a mature neuropeptide of 10 amino acids is cleaved. However, while the human genome retains the sequence for a functional GNRH2 decapeptide, translation of the human GNRH2 gene has not yet been demonstrated and the GNRH2 gene of chimpanzees, gorilla, and Sumatran orangutan have a premature stop at codon eight of the decapeptide sequence which suggests GNRH2 was a pseudogene in the hominid lineage. The GNRH2 gene is also believed to be a pseudogene in many other mammalian species such as mouse and cow. The receptor for this gene (GNRHR2) is predicted to be a pseudogene in human as well as many other mammalian species. The closely related GNRH1 and GNRHR1 genes are functional in human and other mammals and are generally functional in vertebrates. [provided by RefSeq, Mar 2019]

**Transcript Variant:** This variant (3) uses an alternate in-frame splice site compared to variant 1, resulting in a shorter isoform (c) compared to isoform a.