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Product datasheet for SC303034

GNRH2 (NM_001501) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	GNRH2 (NM_001501) Human Untagged Clone
Tag:	Tag Free
Symbol:	GNRH2
Synonyms:	GnRH-II; LH-RHII
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC303034 representing NM_001501. Blue=Insert sequence Red=Cloning site Green=Tag(s) GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC ATGGCCAGCTCCAGGCGAGGCCTCCTGCTCCTGCTGCTGCTGACTGCCCACCTTGGACCCTCAGAGGCT CAGCACTGGTCCCATGGCTGGTACCCTGGAGGAAAGCGAGCCCTCAGCTCAGCCCAGGATCCCCAGAAT GCCCTTAGGCCCCCAGGAAGGGCCCTGGACACTGCAGCAGGCAGCCCAGTCCAGACTGCCCATGGCCTC CCAAGTGATGCCCTGGCTCCCCTGGACGACAGCATGCCCTGGGAGGGCAGGACCACGGCCCAGTGGTCC CTTCACAGGAAGCGACACCTGGCACGGACACTGCTGACCGCAGCCCGAGAGCCCCGCCCCGCCCCGCCA TCCTCCAATAAAGTGTGA ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
Restriction Sites:	SgfI-MluI
ACCN:	NM_001501
Insert Size:	363 bp

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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 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.
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_001501.1
RefSeq Size:	423 bp
RefSeq ORF:	363 bp
Locus ID:	2797
UniProt ID:	O43555
Cytogenetics:	20p13
Protein Families:	Druggable Genome, Secreted Protein
Protein Pathways:	GnRH signaling pathway
MW:	12.9 kDa

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 (1) represents the longest transcript and encodes the longest isoform (a). Variants 1 and 4 encode the same isoform (a).