

Product datasheet for **RG215844**

OGFR (NM_007346) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	TurboGFP
Symbol:	OGFR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



ORF Nucleotide Sequence: >RG215844 ORF sequence, **codon optimized**.
Due to the complexity of NM_007346, the ORF clone is codon optimized for mammalian Expression.
The nucleotide sequence differs from the reference sequence, yet the amino acid sequence remains identical.

Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGGATGATCCCGACTGCGACTCCACTTGGGAAGAGGATGAGGAGGACGCAGAGGATGCAGAAGATGAGG
ATTGTGAAGACGGAGAGGACGCGGCCAGGGACGCCGACGCGGTGACGAGGATGAGGAGTCCGAGGA
ACCGAGAGCAGCAAGACCATCTAGCTTTCAATCCCGAATGACCGGAAGTAGAACTGGCGGGCGACAAGA
GACATGTGTAGATACCGGCATAACTACCTGATTTGGTGGAAAGAGACTGCAATGGGGACACACCTAATC
TCAGCTTTTATAGGAACGAAATTCGCTTTCTGCCTAATGGGTGCTTTATCGAAGATATACTCCAAAACCTG
GACCGACAACCTACGACCTGCTCGAAGATAACCACTCTTATATCCAGTGGCTGTTCCCGCTTAGGGAACCC
GGCGTGAATTGGCATGCGAAACCTCTGACCTGCGCGAGGTGGAAGTCTTTAAAGTTACAGGAGATCC
AGGAGAGACTCGTTAGAGCCTATGAGCTTATGCTCGGATTTATGGGATTAGGCTGGAGGATCGCGGTAC
CGGCACTGTGCGACGCGCCAGAACTATCAGAAGCGGTTTCAAACCTGAACTGGAGAAGCCACAACAAT
CTCCGCATCACTCGGATCCTCAAGAGCCTGGGCGAACTCGGCCTCGAACACTTTCAGGCTCCGTTGGTTC
GCTTCTTCTCGAGGAACTCTCGTGCAGAGAACTGCCCGAGTTCGGCAGTCCGCACTGGATTACTT
CATGTTGCGAGTGCCTGCAGACACCAGAGGAGACAAGTACACTTTGCCTGGGAACATTTAGACCC
AGGTGTAATTTGTATGGGGCCACAGGATAAACTGCGACGGTTTAAACCATCAAGTCTGCCTCACCCAC
TGGAGGGGAGCAGAAAGGTAGAAGAAGAGGGATCACCTGGAGATCCTGACCACGAAGCATCTACCCAAGG
AAGGACCTGCGGACCTGAACACAGCAAGGAGGAGGACGGGTCGACGAAGTCTCAGCCTCGGTCCGTG
GAGCCACAGGATGCAGGACCATTTGAGAGGAGCCAGGAGACGAGGCCGAGGTACGGCGAGGACCGGC
CCGAACCTCTGTACCTAAGGAATCTAAAAACGGAACCTTGAGCTCTCCAGGAGAGAGCAGCCCCCAC
AGAGCCAGGACCACAGAGCGCTTCCGAAGTGGAGAAGATTGCATTGAACCTGGAGGGCTGCGCACTGAGC
CAAGGTTATTGCGGACCGGTACGCAGGAAGTCGGAGGCCAGGACCTGGAGAAGCAGTGCAGCCATGTC
GGCAGCCTCTTGGCGCCAGGTAGCCGATAAGGTGAGAAAGAGACGCAAGGTGGACGAAGGTGCCGGGA
TTCAGCTGCTGTGGCTTCAAGAGGCGCCAGACACTTGCCTGGCCGGTTCACCTGCGCCGTGAGGACAC
CCAAAGGCTGGCCATAGTGAGAATGGAGTGGAGGAAGACACCGAGGGGAGAACTGGGCCAAAGGAAGGA
CCCCTGGGAGTCTAGTGAGACTCCCGGGCCAAGCCCTGCTGGACCGGCAGGCGATGAGCCCGCGGAATC
ACCATCCGAGACACCAGGCCACGCGCCGCTGGACAGCGGGCGACGAACCGGCCGAAAGTCTTCAGAA
ACACCTGGACCAAGACCGGCCGCGCCGGCTGGAGACGAGCCAGCCGAGAGCCCTTCAGAGACACCGGCC
CTTCCCCCGCAGGACCCACTAGAGACGAGCCGGCAGAGTCTCCAGCGAAACACCCGGCCCCCGCCTGC
TGGCCCCGCTGGGGATGAGCCAGCAGAGAGCCGAGTGAACACCCGGTCCGAGGCCCGCCGCCAGCG
GGTGATGAACAGCCGAAAGCCCTCTGAACTCCCGGTCTAGCCCCGCTGGACCTACCAGGGACGAGC
CAGCCAAGGCCGAGAAGCTGCTGAACTGCAAGACGCCGAAGTAGAGTCTAGTGCGAAGAGCGGGAACCC
C

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

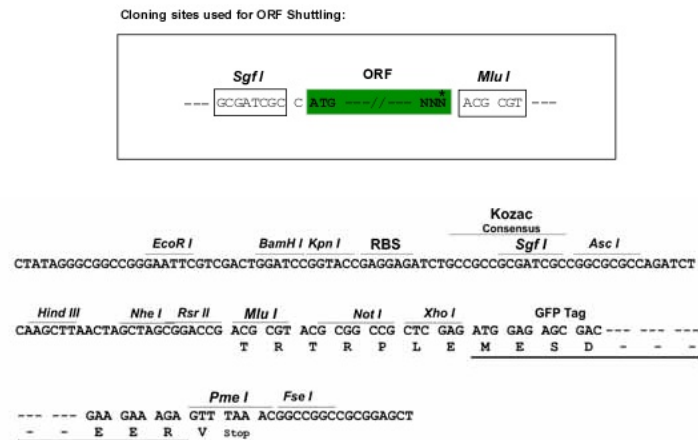
Protein Sequence: >RG215844 representing NM_007346
Red=Cloning site Green=Tags(s)

MDDPDCDSTWEDEEDAEDAEDCEDGEAAGARDADAGDEDEESEEPRAARPSFQSRMTGSRNWRATR
DMCRYRHNPDLVERDCNGDTPNLSFYRNEIRFLPNGCFIEDILQNWTDNYDLLEDNHSYIQWLFLPREP
GVNWHAKPLTLREVEVFKSSQEIQLRLVAYELMLGFYGIRLEDRTGTVGRAQNYQKRFQNLNWRSHNN
LRITRILKSLGELGLEHFQAPLVRFLEETLVRRELPGVRQSALDYFMFAVRCRHQRRQLVHFAWEHFRP
RCKFVWGPQDKLRRFKPSSLPHPLEGSRKVEEGSPGDPDHEASTQGRTCGPEHSGGGGRVDEGPQPRSV
EPQDAGPLERSQGDEAGGHGEDRPEPLSPKESKKRKLRLSRREQPTTEPGPQSASEVEKIALNLEGCALS
QGSLRTGTQEVGGQDPGEAVQPCRQPLGARVADKVRKRKVDGAGDSAAVASGGAQTLALAGSPAPSGH
PKAGHSENGVEEDTEGRTGPKEGTGPSPSETPGSPAGPAGDEPAESPSETPGPRPAGPAGDEPAESPSE
TPGPRPAGPAGDEPAESPSETPGSPAGPTRDEPAESPSETPGPRPAGPAGDEPAESPSETPGPRPAGPA
GDEPAESPSETPGSPAGPTRDEPAKAGEAAELQDAEVSSAKSGKP

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_007346

ORF Size: 2031 bp

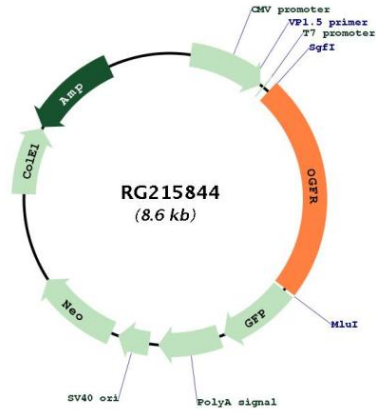
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	<u>NM_007346.2</u> , <u>NP_031372.2</u>
RefSeq Size:	2410 bp
RefSeq ORF:	2034 bp
Locus ID:	11054
UniProt ID:	<u>Q9NZT2</u>
Cytogenetics:	20q13.33
Domains:	OGFr_N, OGFr_repeat
Protein Families:	Druggable Genome
Gene Summary:	The protein encoded by this gene is a receptor for opioid growth factor (OGF), also known as [Met(5)]-enkephalin. OGF is a negative regulator of cell proliferation and tissue organization in a variety of processes. The encoded unbound receptor for OGF has been localized to the outer nuclear envelope, where it binds OGF and is translocated into the nucleus. The coding sequence of this gene contains a polymorphic region of 60 nt tandem imperfect repeat units. Several transcripts containing between zero and eight repeat units have been reported. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG215844