

## Product datasheet for **RG201350**

### ENSA (NM\_004436) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** ENSA (NM\_004436) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** ENSA  
**Synonyms:** ARPP-19e  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG201350 representing NM\_004436  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCCCAGAAACAAGAAGAAGAGAACCCTGCGGAGGAGACCGGCGAGGAGAAGCAGGACACGCAGGAGA  
AAGAAGGTATTCTGCCTGAGAGAGCTGAAGAGGCAAAGCTAAAGGCCAAATACCCAAGCCTAGGACAAAA  
GCCTGGAGGCTCCGACTTCCTCATGAAGAGACTCCAGAAAGGGCAAAGTACTTTGACTCAGGAGACTAC  
AACATGGCCAAAGCCAAGATGAAGAATAAGCAGCTGCCAAGTGCAGGACCAGACAAGAACCTGGTGACTG  
GTGATCACATCCCACCCACAGGATCTGCCCCAGAGAAAGTCCTCGCTCGTCACCAGCAAGCTTGCGGG  
TGCCAAGTTGAA

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:** >RG201350 representing NM\_004436  
Red=Cloning site Green=Tags(s)

MSQKQEEENPAEETGEEKQDTQEKEGILPERAEEAKLKAKYPSLGQKPGGSDFLMKRLQKQKYFDSGDY  
NMAKAKMKNKQLPSAGPDKNLVTDHIIPTQDLRQRKSSLVTSKLAGGQVE

**TRTRPLE** - GFP Tag - V

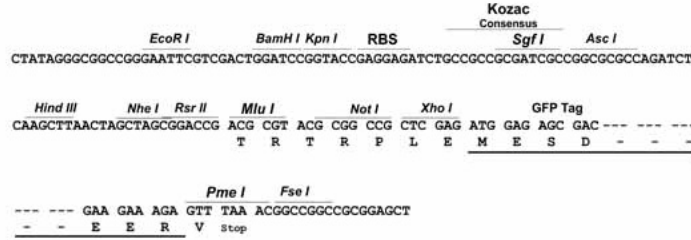
**Restriction Sites:** Sgfl-MluI



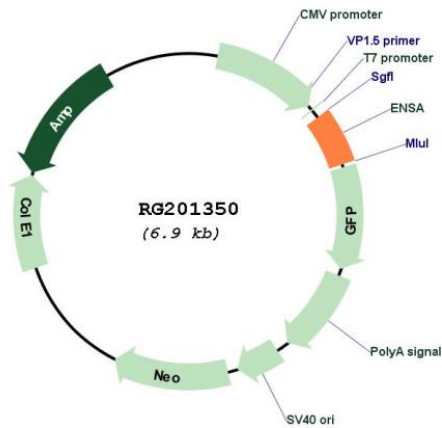
[View online »](#)

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM\_004436  
 ORF Size: 363 bp

**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](mailto: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 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\\_004436.4](#)

**RefSeq Size:** 1252 bp

**RefSeq ORF:** 366 bp

**Locus ID:** 2029

**UniProt ID:** [O43768](#)

**Cytogenetics:** 1q21.3

**Domains:** endosulfine

**Protein Families:** Druggable Genome

**Gene Summary:**

The protein encoded by this gene belongs to a highly conserved cAMP-regulated phosphoprotein (ARPP) family. This protein was identified as an endogenous ligand for the sulfonylurea receptor, ABCC8/SUR1. ABCC8 is the regulatory subunit of the ATP-sensitive potassium (KATP) channel, which is located on the plasma membrane of pancreatic beta cells and plays a key role in the control of insulin release from pancreatic beta cells. This protein is thought to be an endogenous regulator of KATP channels. In vitro studies have demonstrated that this protein modulates insulin secretion through the interaction with KATP channel, and this gene has been proposed as a candidate gene for type 2 diabetes. At least eight alternatively spliced transcript variants encoding distinct isoforms have been observed. [provided by RefSeq, Jul 2008]