

## Product datasheet for **RG236055**

### **OBP2A (NM\_001293193) Human Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** OBP2A (NM\_001293193) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** OBP2A  
**Synonyms:** hOBPIIa; LCN13; OBP; OBP2C; OBPIIa  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG236055 representing NM\_001293193.  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAAGACCTGTTCTGGGTGTCACGCTCGGCCTGGCCGCTGCCTGTCTTCACCCTGGAGGAGGAG
GATGAGGGAGGATCGGTGCATCCAGAAGAAAATCCTGATGCGGAAGACGGAGGAGCCTGGCAAATTCAG
CGCCTATGGGGGAGGAAGCTCATATACCTGCAGGAGCTGCCGGGACGGACGACTACGTCTTTACTG
CAAAGACCAGCCCGTGGGGCCTGCGCTACATGGGAAAGCTTGTGGCATCTGCTCCCTGCAGGGCCGT
GCCGCTGTCCCACCTTGGCTCACCTGGCCACCTCACCTGCAGGTAGGAATCCTAATACCAACCTGGAG
GCCCTGGAAGAATTTAAGAAATTGGTGCAGCACAAAGGACTCTCGGAGGAGGACATTTTCATGCCCTG
CAGACGGGAAGCTGCGTTCTCGAACAC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```

**Protein Sequence:** >Peptide sequence encoded by RG236055  
 Blue=ORF Red=Cloning site Green=Tag(s)

```
MKTLFLGVTLGLAAALSFTLEEEDEGGSVHPEENPDAEDGGAWQIQRLWGQEAHIPAGAARDGRLRLLL
QRPAPWGPALHGKACGICSLQGRAAVPTLAHLATSPAGRNPNTNLEALEEFKKL VQHKGLSEEDIFMPL
QTGSCVLEH
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPYSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

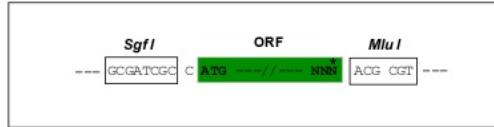
**Restriction Sites:** Sgfl-MluI



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**Cloning Scheme:**

Cloning sites used for ORF Shutting:



```

                                Kozac
                                Consensus
                                SgfI   AscI
EcoRI   BamHI KpnI   RBS
CTATAGGGCGGCGGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGGCCAGATCT

HindIII  NheI  RsrII  MluI   NotI   XhoI   GFP Tag
CAAGCTTAACTAGCTAGCGGACCG  ACG CGT  ACG CGG  CCG CTC GAG  ATG GAG  AGC GAC  ---
                                   T  R  T  R  P  L  E      M  E  S  D  -  -  -

                                PmeI   FseI
---  GAA  GAA  AGA  GTT  TAA  ACGGCCGGCCGCGGAGCT
- -  E  E  R  V  Stop
    
```

**ACCN:** NM\_001293193

**ORF Size:** 441 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).

**RefSeq:** [NM\\_001293193.2](#)

**RefSeq Size:** 620 bp

**RefSeq ORF:** 444 bp

**Locus ID:** 29991

**UniProt ID:** [Q9NY56](#)

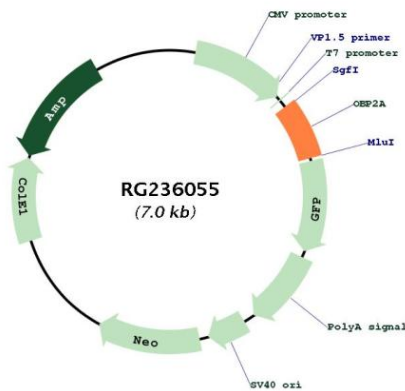
**Cytogenetics:** 9q34.3

**Protein Families:** Secreted Protein

**MW:** 16.2 kDa

**Gene Summary:**

This gene encodes a small extracellular protein belonging to the lipocalin superfamily. The protein is thought to transport small, hydrophobic, volatile molecules or odorants through the nasal mucus to olfactory receptors, and may also function as a scavenger of highly concentrated or toxic odors. The protein is expressed as a monomer in the nasal mucus, and can bind diverse types of odorants with a higher affinity for aldehydes and fatty acids. This gene and a highly similar family member are located in a cluster of lipocalin genes on chromosome 9. Alternatively spliced transcript variants have been described, but their biological validity has not been determined. [provided by RefSeq, Jul 2008]

**Product images:**


Circular map for RG236055