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## Product datasheet for RG224455

## OR2T12 (NM_001004692) Human Tagged ORF Clone

## Product data:

## Product Type:

Product Name:

## Tag:

Symbol:
Synonyms:
Mammalian Cell
Selection:
Vector:
E. coli Selection:

ORF Nucleotide
Sequence:

Expression Plasmids
OR2T12 (NM_001004692) Human Tagged ORF Clone
TurboGFP
OR2T12
OR1-57
Neomycin
pCMV6-AC-GFP (PS100010)
Ampicillin ( $100 \mathrm{ug} / \mathrm{mL}$ )
>RG224455 representing NM_001004692
Red=Cloning site Blue=ORF Green=Tags(s)

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TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC

ATGGAGATGAGAAATACTACCCCAGATTTTATTCTCCTAGGACTCTTTAACCACACCAGAGCCCACCAAG TCCTCTTCATGATGCTTCTGGCCACCGTTTTGACCTCCCTGTTTAGCAATGCCCTCATGATTCTCCTGAT TCACTGGGACCACCGGCTCCACAGGCCCATGTACTTCCTCCTGAGCCAACTTTCCCTCATGGACATGATG CTGGTTTCCACCACTGTGCCCAAAATGGCGGCTGACTACTTGACCGGAAATAAGGCCATCTCCCGCGCTG GCTGTGGTGTGCAGATCTTCTTCCTCCCCACACTGGGTGGTGGAGAGTGCTTCCTCTTAGCAGCCATGGC CTATGACCGCTATGCGGCTGTCTGCCACCCACTCCGATATCCCACTCTCATGAGCTGGCAGCTGTGCCTG AGGATGACCATGTCGTCCTGGCTCCTGGGTGCAGCTGACGGCCTCCTGCAGGCTGTTGCTACCCTGAGCT TCCCATATTGCGGTGCACACGAGATCGATCACTTCTTCTGCGAGGCCCCCGTGTTGGTGCGTTTGGCTTG TGCTGACACTTCAGTCTTCGAAAACGCCATGTACATCTGCTGTGTGTTAATGCTCCTGGTCCCCTTTTCC CTCATCCTGTCCTCCTATGGTCTCATCCTCGCTGCTGTTCTGCTCATGCGCTCTACAGAAGCCCGCAAGA AGGCCTTTGCCACCTGCTCTTCACATGTGGCTGTGGTGGGACTCTTTTATGGAGCTGGCATTTTTACCTA TATGAGACCCAAATCCCACAGGTCCACTAACCACGATAAGGTTGTGTCAGCCTTCTATACTATGTTCACC CCTTTACTAAATCCCCTCATCTACAGTGTGAGGAACAGTGAGGTCAAGGAAGCCCTGAAACGGTGGCTGG GGACGTGTGTAAACCTAAAACACCAGCAAAATGAGGCCCACAGGTCAAGA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA
Protein Sequence:

    Red=Cloning site Green=Tags(s)
    MEMRNTTPDFILLGLFNHTRAHQVLFMMLLATVLTSLFSNALMILLIHWDHRLHRPMYFLLSQLSLMDMM LVSTTVPKMAADYLTGNKAISRAGCGVQIFFLPTLGGGECFLLAAMAYDRYAAVCHPLRYPTLMSWQLCL RMTMSSWLLGAADGLLQAVATLSFPYCGAHEIDHFFCEAPVLVRLACADTSVFENAMYICCVLMLLVPFS LILSSYGLILAAVLLMRSTEARKKAFATCSSHVAVVGLFYGAGIFTYMRPKSHRSTNHDKVVSAFYTMFT PLLNPLIYSVRNSEVKEALKRWLGTCVNLKHQQNEAHRSR

```
TRTRPLE - GFP Tag - V
```


## Restriction Sites: <br> Sgfl-Mlul

Cloning Scheme:

> Cloning sites used for ORF Shuttling:

CTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCCGGCGCGCCAGATCT

Pme I Fse I



ACCN:

NM_001004692

ORF Size:
960 bp

## OTI Disclaimer:

OTI Annotation:

Reconstitution Method: 1. Centrifuge at $5,000 \mathrm{xg}$ for 5 min .

RefSeq:
RefSeq Size:
RefSeq ORF:
Locus ID: 127064
UniProt ID: $\quad$ Q8NG77
Cytogenetics:
Protein Families:
Protein Pathways:
Gene Summary:
$\begin{array}{ll}\text { Components: } & \text { The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube } \\ \text { containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with } 100 \text { ul of water). }\end{array}$
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).
2. Carefully open the tube and add 100 ul 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 5000 xg ) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at $-20^{\circ} \mathrm{C}$. The DNA is stable for at least one year from date of shipping when stored at $-20^{\circ} \mathrm{C}$.
NM 001004692.1 NP 001004692.1
963 bp
963 bp
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

This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

1q44
Transmembrane
Olfactory transduction
Olfactory receptors interact with odorant molecules in the nose, to initiate a neuronal response that triggers the perception of a smell. The olfactory receptor proteins are members of a large family of G-protein-coupled receptors (GPCR) arising from single codingexon genes. Olfactory receptors share a 7 -transmembrane domain structure with many neurotransmitter and hormone receptors and are responsible for the recognition and $G$ protein-mediated transduction of odorant signals. The olfactory receptor gene family is the largest in the genome. The nomenclature assigned to the olfactory receptor genes and proteins for this organism is independent of other organisms. [provided by RefSeq, Jul 2008]

