

Product datasheet for **RG201995**

EMP2 (NM_001424) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: EMP2 (NM_001424) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: EMP2
Synonyms: XMP
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG201995 representing NM_001424
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGCATCGCC**

ATGTTGGTGCTTCTTGCTTTTCATCATCGCCTCCACATCACCTCTGCAGCCTTGCTGTTTCATTGCCACCG
TCGACAATGCCTGGTGGGTAGGAGATGAGTTTTTGCAGATGTCTGGAGAATATGTACCAACAACACGAA
TTGCACAGTCATCAATGACAGCTTCAAGAGTACTCCACGCTGCAGGCGGTCCAGGCCACCATGATCCTC
TCCACCATTCTGCTGCATCGCCTTCTCATCTTCGTGCTCCAGCTCTCCGCCTGAAGCAGGGAGAGA
GGTTTGCCTAACCTCCATCATCCAGCTAATGTCATGTCTGTGTGTCATGATTGCGGCCTCATTATAC
AGACAGGCGTGAAGACATTACAGCAAAAACGCGAAATTCATCCCGTGACCAGAGAAGGCAGCTACGGC
TACTCCTACATCCTGGCGTGGGTGGCCTTCGCCTGCACCTTCATCAGCGGCATGATGTACCTGATACTGA
GGAAGCGCAAA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG201995 representing NM_001424
Red=Cloning site Green=Tags(s)

MLVLLAFIIAFHITSAALLFIATVDNAWVWVDEFFADVWRICNTNCTVINDSFQEYSTLQAVQATMIL
STILCCIAFFIFVLQFLRKLQGERFVLTSLIQLMSCLCVMIAASIYTDREDIHDKNAKFPVTRREGSYG
YSYILAWVAFACTFISGMMYLILRKRK

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



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Cloning Scheme:


ACCN: NM_001424

ORF Size: 501 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.

RefSeq: [NM_001424.6](#)

RefSeq Size: 1484 bp

RefSeq ORF: 504 bp

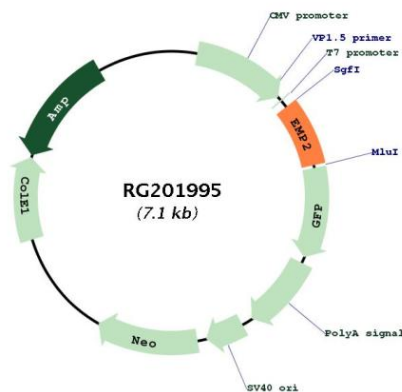
Locus ID: 2013

UniProt ID: [P54851](#)

Cytogenetics: 16p13.13
Domains: PMP22_Claudin
Protein Families: Transmembrane

Gene Summary: This gene encodes a tetraspan protein of the PMP22/EMP family. The encoded protein regulates cell membrane composition. It has been associated with various functions including endocytosis, cell signaling, cell proliferation, cell migration, cell adhesion, cell death, cholesterol homeostasis, urinary albumin excretion, and embryo implantation. It is known to negatively regulate caveolin-1, a scaffolding protein which is the main component of the caveolae plasma membrane invaginations found in most cell types. Through activation of PTK2 it positively regulates vascular endothelial growth factor A. It also modulates the function of specific integrin isomers in the plasma membrane. Up-regulation of this gene has been linked to cancer progression in multiple different tissues. Mutations in this gene have been associated with nephrotic syndrome type 10 (NPHS10). [provided by RefSeq, Mar 2015]

Product images:



Circular map for RG201995