

Product datasheet for RC201995

EMP2 (NM_001424) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: EMP2 (NM_001424) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: EMP2
Synonyms: XMP
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC201995 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTTGGTGCTTCTTGCTTTTCATCATCGCCTTCCACATCACCTCTGCAGCCTTGCTGTTTCATTGCCACCG
TCGACAATGCCTGGTGGTAGGAGATGAGTTTTTGCAGATGTCTGGAGAATATGTACCAACAACACGAA
TTGCACAGTCATCAATGACAGCTTCAAGAGTACTCCACGCTGCAGGCGGTCCAGGCCACCATGATCCTC
TCCACCATTCTGCTGCATCGCCTTCTCATCTTCGTGCTCCAGCTCTCCGCCTGAAGCAGGGAGAGA
GGTTTGTCTAACCTCCATCATCCAGCTAATGTCATGTCTGTGTGTCATGATTGGGCCTCCATTTATAC
AGACAGGCGTGAAGACATTCACGACAAAAACGCGAAATTCATCCCGTGACCAGAGAAGGCAGCTACGGC
TACTCCTACATCCTGGCGTGGGTGGCCTTCGCCTGCACCTTCATCAGCGGCATGATGTACCTGATACTGA
GGAAGCGCAA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC201995 protein sequence
Red=Cloning site Green=Tags(s)

MLVLLAFIIAFHITSAALLFIATVDNAWVWVDEFFADVWRICNTNCTVINDSFQEYSTLQAVQATMIL
STILCCIAFFIFVLQFRLKQGERFVLTSLIQLMSCLCVMIAASIYDRREDIHDKNAKFYPVTRREGSYG
YSYILAWVAFACTFISGMMYLILRKRK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6004_a10.zip



[View online »](#)

Restriction Sites: SgfI-MluI

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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_001424.6](#)

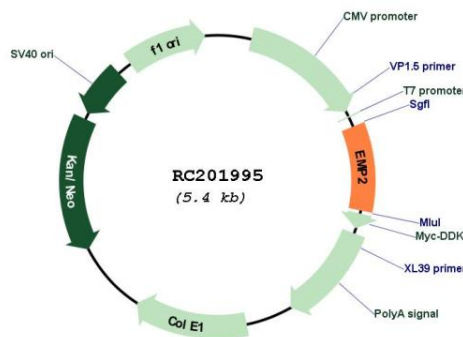
RefSeq Size: 5186 bp

RefSeq ORF: 504 bp

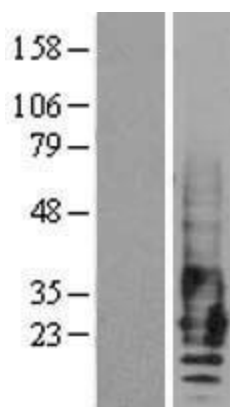
Locus ID: 2013
UniProt ID: [P54851](#)
Cytogenetics: 16p13.13
Domains: PMP22_Claudin
Protein Families: Transmembrane
MW: 19.2 kDa

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]

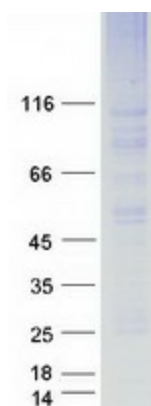
Product images:



Circular map for RC201995



Western blot validation of overexpression lysate (Cat# [LY400553]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201995 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified EMP2 protein (Cat# [TP301995]). The protein was produced from HEK293T cells transfected with EMP2 cDNA clone (Cat# RC201995) using MegaTran 2.0 (Cat# [TT210002]).