

Product datasheet for RR213619L4

9620 Medical Center Drive, Ste 200 Rockville, MD 20850, US Phone: +1-888-267-4436 https://www.origene.com

OriGene Technologies, Inc.

techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Mapkap1 (NM_001011964) Rat Tagged Lenti ORF Clone

Product data:

Product Type: Expression Plasmids

Product Name: Mapkap1 (NM_001011964) Rat Tagged Lenti ORF Clone

Tag: mGFP

Symbol: Mapkap1

Mammalian Cell Puromycin

Selection:

Vector: pLenti-C-mGFP-P2A-Puro (PS100093)

E. coli Selection: Chloramphenicol (34 ug/mL)

ORF Nucleotide

The ORF insert of this clone is exactly the same as(RR213619).

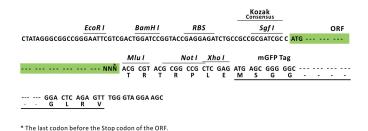
Sequence:

ACCN:

Restriction Sites: Sgfl-Mlul

Cloning Scheme:





NM_001011964

ORF Size: 1566 bp

Mapkap1 (NM_001011964) Rat Tagged Lenti ORF Clone - RR213619L4

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: <u>NM 001011964.1</u>, <u>NP 001011964.1</u>

 RefSeq Size:
 2400 bp

 RefSeq ORF:
 1569 bp

 Locus ID:
 296648

 UniProt ID:
 Q6AYF1

Cytogenetics: 3p11

Gene Summary: Subunit of mTORC2, which regulates cell growth and survival in response to hormonal

signals. mTORC2 is activated by growth factors, but, in contrast to mTORC1, seems to be nutrient-insensitive. mTORC2 seems to function upstream of Rho GTPases to regulate the actin cytoskeleton, probably by activating one or more Rho-type guanine nucleotide exchange factors. mTORC2 promotes the serum-induced formation of stress-fibers or F-actin. mTORC2

plays a critical role in AKT1 'Ser-473' phosphorylation, which may facilitate the

phosphorylation of the activation loop of AKT1 on 'Thr-308' by PDK1 which is a prerequisite for full activation. mTORC2 regulates the phosphorylation of SGK1 at 'Ser-421'. mTORC2 also modulates the phosphorylation of PRKCA on 'Ser-657'. Within mTORC2, MAPKAP1 is required for complex formation and mTORC2 kinase activity. MAPKAP1 inhibits MAP3K2 by preventing its dimerization and autophosphorylation. Inhibits HRAS and KRAS signaling. Enhances

osmotic stress-induced phosphorylation of ATF2 and ATF2-mediated transcription. Involved in ciliogenesis, regulates cilia length through its interaction with CCDC28B independently of

mTORC2 complex (By similarity).[UniProtKB/Swiss-Prot Function]