

### Product datasheet for RR207334L4

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

CN: techsupport@origene.cn

OriGene Technologies, Inc.

## Actr2 (NM\_001009268) Rat Tagged Lenti ORF Clone

**Product data:** 

**Product Type:** Expression Plasmids

**Product Name:** Actr2 (NM\_001009268) Rat Tagged Lenti ORF Clone

Tag: mGFP Symbol: Actr2

Synonyms: MGC95085

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(RR207334).

Sequence:

**Restriction Sites:** Sgfl-Mlul

**Cloning Scheme:** 





 $<sup>\</sup>ensuremath{^*}$  The last codon before the Stop codon of the ORF.

ACCN: NM\_001009268

ORF Size: 1182 bp



### Actr2 (NM\_001009268) Rat Tagged Lenti ORF Clone - RR207334L4

**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 001009268.1</u>, <u>NP 001009268.1</u>

 RefSeq Size:
 1326 bp

 RefSeq ORF:
 1185 bp

 Locus ID:
 289820

 UniProt ID:
 Q5M7U6

 Cytogenetics:
 14q22

**Gene Summary:** ATP-binding component of the Arp2/3 complex, a multiprotein complex that mediates actin

polymerization upon stimulation by nucleation-promoting factor (NPF). The Arp2/3 complex mediates the formation of branched actin networks in the cytoplasm, providing the force for cell motility. Seems to contact the pointed end of the daughter actin filament. In addition to

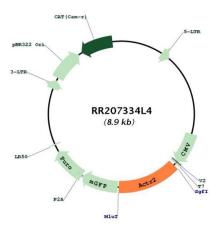
its role in the cytoplasmic cytoskeleton, the Arp2/3 complex also promotes actin

polymerization in the nucleus, thereby regulating gene transcription and repair of damaged DNA. The Arp2/3 complex promotes homologous recombination (HR) repair in response to DNA damage by promoting nuclear actin polymerization, leading to drive motility of double-

strand breaks (DSBs).[UniProtKB/Swiss-Prot Function]



# **Product images:**



Circular map for RR207334L4