

## Product datasheet for MR211074L4

### Aco1 (NM\_007386) Mouse Tagged Lenti ORF Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | Aco1 (NM_007386) Mouse Tagged Lenti ORF Clone                  |
| Tag:                      | mGFP   |
| Symbol:                   | Aco1   |
| Synonyms:                 | Aco-1; Irebp; Irp1   |
| Mammalian Cell Selection: | Puromycin  |
| Vector:                   | pLenti-C-mGFP-P2A-Puro (PS100093)                              |
| E. coli Selection:        | Chloramphenicol (34 ug/mL)                                     |
| ORF Nucleotide Sequence:  | The ORF insert of this clone is exactly the same as(MR211074). |
| Restriction Sites:        | SgfI-RsrII   |
| Cloning Scheme:           |  |

Cloning sites used for ORF Shuttling:

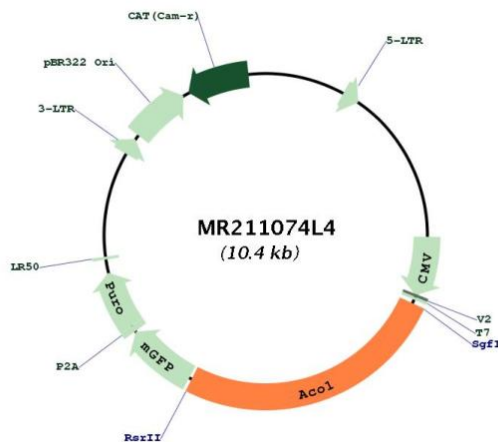


\* The last codon before the Stop codon of the ORF.



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## Plasmid Map:



ACCN: NM\_007386

ORF Size: 2667 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\\_007386.2](#)

RefSeq Size: 4319 bp

RefSeq ORF: 2670 bp

Locus ID: 11428

UniProt ID: [P28271](#)

Cytogenetics: 4 20.24 cM

**Gene Summary:** This gene encodes a member of the aconitase/IPM isomerase protein family. The encoded protein has been identified as a moonlighting protein based on its ability to perform mechanistically distinct functions. Depending on iron levels in the cytosol, the encoded protein can function as either an aconitase enzyme or as an mRNA binding protein. When cellular iron levels are high, the encoded protein functions as an aconitase, an essential enzyme in the TCA cycle that catalyzes the conversion of citrate to isocitrate. When cellular iron levels are low, the encoded protein regulates iron uptake and utilization by binding to iron-responsive elements in the untranslated regions of mRNAs for genes involved in iron metabolism. Disruption of this gene is associated with pulmonary hypertension and polycythemia. [provided by RefSeq, Jan 2014]