

## Product datasheet for RC230154L4

### SHMT2 (NM\_001166357) Human Tagged Lenti ORF Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | SHMT2 (NM_001166357) Human Tagged Lenti ORF Clone              |
| Tag:                      | mGFP   |
| Symbol:                   | SHMT2  |
| Synonyms:                 | GLYA; HEL-S-51e; NEDCASB; SHMT                                 |
| 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(RC230154). |
| Restriction Sites:        | SgfI-MluI  |
| Cloning Scheme:           |  |

Cloning sites used for ORF Shuttling:



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

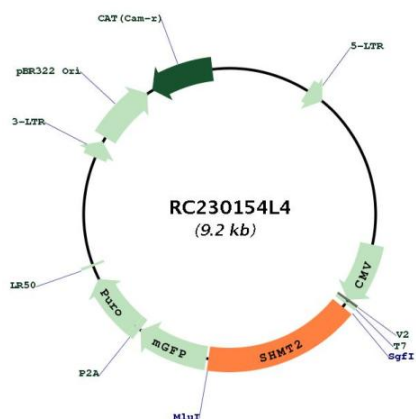
|           |              |
|-----------|--------------|
| ACCN:     | NM_001166357 |
| ORF Size: | 1512 bp      |



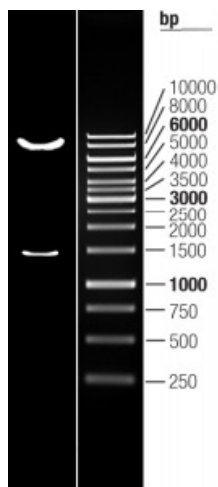
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|                               |   |
|-------------------------------|---|
| <b>OTI Disclaimer:</b>        | The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences 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. <a href="#">More info</a>  |
| <b>OTI Annotation:</b>        | This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.  |
| <b>Components:</b>            | 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).  |
| <b>Reconstitution Method:</b> | <ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>   |
| <b>RefSeq:</b>                | <a href="#">NM_001166357.1</a> , <a href="#">NP_001159829.1</a>   |
| <b>RefSeq Size:</b>           | 2357 bp   |
| <b>RefSeq ORF:</b>            | 1452 bp   |
| <b>Locus ID:</b>              | 6472  |
| <b>UniProt ID:</b>            | <a href="#">P34897</a>  |
| <b>Cytogenetics:</b>          | 12q13.3   |
| <b>Protein Pathways:</b>      | Cyanoamino acid metabolism, Glycine, serine and threonine metabolism, Metabolic pathways, Methane metabolism, One carbon pool by folate   |
| <b>MW:</b>                    | 56 kDa  |
| <b>Gene Summary:</b>          | This gene encodes the mitochondrial form of a pyridoxal phosphate-dependent enzyme that catalyzes the reversible reaction of serine and tetrahydrofolate to glycine and 5,10-methylene tetrahydrofolate. The encoded product is primarily responsible for glycine synthesis. The activity of the encoded protein has been suggested to be the primary source of intracellular glycine. The gene which encodes the cytosolic form of this enzyme is located on chromosome 17. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Oct 2009] |

Product images:



Circular map for RC230154L4



Double digestion of RC230154L4 using SgfI and MluI