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# Product datasheet for RC213332L2V

## Hamartin (TSC1) (NM_000368) Human Tagged ORF Clone Lentiviral Particle

### Product data:

| | |
|---|---|
| **Product Type:** | Lentiviral Particles |
| **Product Name:** | Hamartin (TSC1) (NM_000368) Human Tagged ORF Clone Lentiviral Particle |
| **Symbol:** | Hamartin |
| **Synonyms:** | LAM; TSC |
| **Mammalian Cell Selection:** | None |
| **Vector:** | pLenti-C-mGFP (PS100071) |
| **Tag:** | mGFP |
| **ACCN:** | NM_000368 |
| **ORF Size:** | 3504 bp |
| **ORF Nucleotide Sequence:** | The ORF insert of this clone is exactly the same as(RC213332). |
| **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. |
| **RefSeq:** | NM_000368.3 |
| **RefSeq Size:** | 8617 bp |
| **RefSeq ORF:** | 3495 bp |
| **Locus ID:** | 7248 |
| **UniProt ID:** | Q92574 |
| **Cytogenetics:** | 9q34.13 |
| **Domains:** | Hamartin |
| **Protein Pathways:** | Insulin signaling pathway, mTOR signaling pathway |

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**MW:** 130.3 kDa

**Gene Summary:** This gene is a tumor suppressor gene that encodes the growth inhibitory protein hamartin. The encoded protein interacts with and stabilizes the GTPase activating protein tuberin. This hamartin-tuberin complex negatively regulates mammalian target of rapamycin complex 1 (mTORC1) signalling which is a major regulator of anabolic cell growth. This protein also functions as a co-chaperone for Hsp90 that inhibits its ATPase activity. This protein functions as a facilitator of Hsp90-mediated folding of kinase and non-kinase clients, including Tsc2 and thereby preventing their ubiquitination and proteasomal degradation. Mutations in this gene have been associated with tuberous sclerosis. [provided by RefSeq, Apr 2018]