

## Product datasheet for **RC228646L4V**

### Hamartin (TSC1) (NM\_001162426) Human Tagged ORF Clone Lentiviral Particle

#### Product data:

Product Type:	Lentiviral Particles
Product Name:	Hamartin (TSC1) (NM_001162426) Human Tagged ORF Clone Lentiviral Particle
Symbol:	TSC1
Synonyms:	LAM; TSC
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-mGFP-P2A-Puro (PS100093)
Tag:	mGFP
ACCN:	NM_001162426
ORF Size:	3489 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC228646).
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. <a href="#">More info</a>
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:	<a href="#">NM_001162426.1</a>
RefSeq ORF:	3492 bp
Locus ID:	7248
UniProt ID:	<a href="#">Q92574</a>
Cytogenetics:	9q34.13
Protein Pathways:	Insulin signaling pathway, mTOR signaling pathway
MW:	129.5 kDa



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**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]