

## Product datasheet for **RC220233L3V**

### **TIAM1 (NM\_003253) Human Tagged ORF Clone Lentiviral Particle**

#### **Product data:**

Product Type:	Lentiviral Particles
Product Name:	TIAM1 (NM_003253) Human Tagged ORF Clone Lentiviral Particle
Symbol:	TIAM1
Synonyms:	TIAM-1
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-Myc-DDK-P2A-Puro (PS100092)
Tag:	Myc-DDK
ACCN:	NM_003253
ORF Size:	4773 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC220233).
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_003253.1</a>
RefSeq Size:	5521 bp
RefSeq ORF:	4776 bp
Locus ID:	7074
UniProt ID:	<a href="#">Q13009</a>
Cytogenetics:	21q22.11
Domains:	RhoGEF, PDZ, PH, RBD
Protein Families:	Druggable Genome



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**Protein Pathways:** Chemokine signaling pathway, Regulation of actin cytoskeleton

**MW:** 177.3 kDa

**Gene Summary:** This gene encodes a RAC1-specific guanine nucleotide exchange factor (GEF). GEFs mediate the exchange of guanosine diphosphate (GDP) for guanosine triphosphate (GTP). The binding of GTP induces a conformational change in RAC1 that allows downstream effectors to bind and transduce a signal. This gene thus regulates RAC1 signaling pathways that affect cell shape, migration, adhesion, growth, survival, and polarity, as well as influencing actin cytoskeletal formation, endocytosis, and membrane trafficking. This gene thus plays an important role in cell invasion, metastasis, and carcinogenesis. In addition to RAC1, the encoded protein activates additional Rho-like GTPases such as CDC42, RAC2, RAC3 and RHOA. This gene encodes multiple protein isoforms that experience a diverse array of intramolecular, protein-protein, and phosphorylation interactions as well as phosphoinositide binding. Both the longer and shorter isoforms have C-terminal Dbl homology (DH) and pleckstrin homology (PH) domains while only the longer isoforms of this gene have the N-terminal myristoylation site and the downstream N-terminal PH domain, ras-binding domain (RBD), and PSD-95/DlgA/ZO-1 (PDZ) domain. [provided by RefSeq, Jul 2017]