Recombinant Human TIAM1 protein, His & T7-tagged

Cat. No. TIAM1-8065H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human TIAM1 aa. (Asp1261~Lys1397 (Accession # Q13009)) fused with N-terminal His & T7 tag was produced in E. coli cells.
Species	Human
Source	E.coli
ProteinLength	Asp1261~Lys1397
Description	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.

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Form	Freeze-dried powder
Molecular Mass	Predicted Molecular Mass: 19.2kDa
Endotoxin	<1.0EU per 1ug (determined by the LAL method)
Purity	>95%
Characteristic	The isoelectric point is 8.8.
Applications	SDS-PAGE; WB; ELISA; IP
Stability	The thermal stability is described by the loss rate of the target protein. The loss rate was determined by accelerated thermal degradation test, that is, incubate the protein at 37°C for 48h, and no obvious degradation and precipitation were observed. (Referring from China Biological Products Standard, which was calculated by the Arrhenius equation.) The loss of this protein is less than 5% within the expiration date under appropriate storage condition.
Storage	Avoid repeated freeze/thaw cycles. Store at 2-8°C for one month. Aliquot and store at -80°C for 12 months.
Storage Buffer	Supplied as lyophilized form in 20mM Tris, 150mM NaCl, pH8.0, containing 1mM EDTA, 1mM DTT, 0.01% sarcosyl, 5% trehalose, and preservative.
Reconstitution	Reconstitute in sterile ddH2O.

GENE INFORMATION

Gene Name	TIAM1 T-cell lymphoma invasion and metastasis 1 [Homo sapiens (human)]

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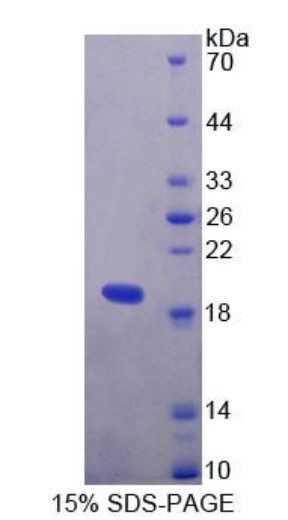
Official Symbol	TIAM1
Synonyms	TIAM-1; human T-lymphoma invasion and metastasis inducing TIAM1 protein; T-lymphoma invasion and metastasis-inducing protein 1
Gene ID	7074
mRNA Refseq	NM_001353684.1
Protein Refseq	NP_001340613.1
UniProt ID	Q13009
SDS-PAGE	 15% SDS-PAGE

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