

Recombinant Human TIAM1 Protein, Myc/DDK-tagged, C13 and N15-labeled

Cat. No. TIAM1-634H Lot. No. (See product label)

SPECIFICATION

Product Overview TIAM1 MS Standard C13 and N15-labeled recombinant protein (NP_003244) with a C-terminal MYC/DDK tag, was expressed in HEK293 cells.

Species Human

Source HEK293

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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Molecular Mass 177.3 kDa

AA Sequence

MGNAESQHVEHEFYGEKHASLGRKHTSRSLRSLSHKTRRRRHASSGKVIHRNSEVST
RSSSTPSIPQSLAENGLPEFSQDGTLEDGFSPIWVDRVDMGLRPVSYTDSSVTPSV
DSSIVLTAASVQSMPDTEESRLYGDDATYLAEGGRRQHSYTSNGPTFMETASFKKK
RSKSADIWREDSLEFSLSDLSQEHLTSNEEILGSAEEKDCEEARGMETRASPRQLST
CQRANSLGDLYAQKNSGVTANGGPGSKFAGYCRNLVSDIPNLANHKMPPAAAEET
PPYSNYNTLPCRKSHCLSEGATNPQISHSNMQGRRAKTTQDVNAGEGSEFADSGI
EGATTDTDLLSRRSNATNSSYSPTTGRAFGVSDSGSSSTGDAARQGVYENFRRELE
MSTTNSESLLEEAGSAHSDEQSSGTLSSPGQSDILLTAAQGTVRKAGALAVKNFLVH
KKNKKVESATRRKWKHYWVSLKGCTLFFYESDGRSGIDHNSIPKHAVVWENSIVQA
VPEHPKKDFVFCLSNLGDALFLQTTSQTELENWITAIHSACATAVARHHHKEDTLR
LLKSEIKKLEQKIDMDEKMKKMGEMQLSSVTDSKSKKTILDQIFVWEQNLEQFQMDL
FRFRCYLASLQGGELPNPKRLLAFASRPTKVAMGRLGIFSVSSFHALVAARTGETGV
RRRTQAMSRASAKRRSRFSSLWGLDTSKSKKQGRPSINQVFGEGTEAVKKSLEGIF
DDIVPDGKREKEVVLPNVHQHNPDCDIWVHEYFTPSWFCLPNNQPALTVVRPGDTA
RDTLELICKTHQLDHSAYHLRLKFLIENKMQLYVPQPEEDIYELLYKEIEICPKVTQSIHI
EKSDTAADTYGFSLSVEEDGIRRLYVNSVKETGLASKKGLKAGDEILEINNRAADAL
NSSMLKDFLSQPSLGLLVRTYPELEEGVELLESPPHRVDGPADLGESPLAFLTSNPG
HSLCSEQGSSAETAPEETEGPDLESSEDET DHSSKSTEQVA AFCRSLHEMNPSDQS
PSPQDSTGPQLATMRQLSDADKLRKVICELLETERTYVKDLNCLMERYLKPLQKETF
LTQDEL DVLFGNLTEMVEFQVEFLKTL EDGVRLVPDLEKLEKVDQFKKVL FSLGGSF
LYYADRFLKLYSAFCASHTKVPKVLVAKTDTAFKAFLDAQNPKQQHSSTLESYLIKPI
QRILKYPLLLRELFALTDAAESEEHYHLDVAIKTMNKVASHINEMQKIHEEFGAVFDQLI
AEQTGEKKEVADLSMGDLLLLHTTVIWLNPPASLGKWKKEPELA AFVFKTAVVLVYKD
GSKQKKKLVGSHRLSIYEDWDPFRFRHMIPTEALQVRALASADA EANAVCEIVHVKS
ESEGRPERVFHLCCSSPESRKDFLKAVHSILRDKHRRQLLKTESLPSSQQYVPFGG
KRLCALKGARPAMSRAVSAPSKSLGRRRRRLARNRFTIDSDAVSASSPEKESQQPP
GGGDTDRWVEEQFDLAQYEEQDDIKETDILSDDDEFCE SVKGASVDRDLQERLQAT
SISQRERGRKTLDSHASRMAQLKKQAALSGINGGLESASEEVIWVRREDFAPSRKL

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NTEISGPTRTRRLEQKLISEEDLAANDILDYKDDDDKV

Purity > 80% as determined by SDS-PAGE and Coomassie blue staining

Stability Stable for 3 months from receipt of products under proper storage and handling conditions.

Storage Store at -80 centigrade. Avoid repeated freeze-thaw cycles.

Concentration 50 µg/mL as determined by BCA

Storage Buffer 100 mM glycine, 25 mM Tris-HCl, pH 7.3.

GENE INFORMATION

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

Official Symbol [TIAM1](#)

Synonyms TIAM1; T-cell lymphoma invasion and metastasis 1; T-lymphoma invasion and metastasis-inducing protein 1; TIAM-1; human T-lymphoma invasion and metastasis inducing TIAM1 protein; FLJ36302;

Gene ID [7074](#)

mRNA Refseq [NM_003253](#)

Protein Refseq [NP_003244](#)

MIM [600687](#)

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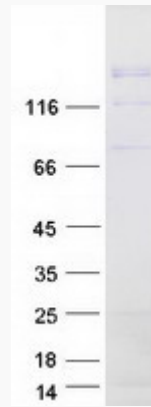
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UniProt ID


Q13009

SDS-PAGE



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