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Product datasheet for AP32985PU-N

TIAM1 (904-1511) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	IF, IHC, IP, WB
Recommended Dilution:	**Immunoblotting.** **Immunoprecipitation.** **Immunocytochemistry.** **Immunohistochemistry on Frozen Sections** **Immunohistochemistry on Paraffin Embedded Sections.** *Recommended Dilutions:* 1/100–1/200 for immunohistochemistry with avidin-biotinylated horseradish peroxidase complex (ABC) as detection reagent and 1/100-1/1000 for Immunoblotting.
Reactivity:	Human, Mouse
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	Human Tiam1 (Catalytic domain/ C-terminal domain) derived by injection of Rabbits with a GST fusion protein with the C-terminal amino acids 904-1511 of Tiam 1.
Specificity:	This Human Tiam1 (catalytic domain/ C-terminal domain) Affinity purified Rabbit antiserum recognizes the C-terminal amino acids 904-1511 of Tiam1 containing the DH-PH regions.
Formulation:	State: Aff - Purified State: Liquid purified antiserum Preservative: 0.09% Sodium Azide
Purification:	Affinity Chromatography using the fusion protein coupled to glutathione agarose beads
Conjugation:	Unconjugated
Storage:	Store undiluted at 2-8°C for one month or (in aliquots) at -20°C for longer. Avoid repeated freezing and thawing.
Stability:	Shelf life: one year from despatch.
Gene Name:	T-cell lymphoma invasion and metastasis 1
Database Link:	Entrez Gene 7074 Human Q13009

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Background:

Directional cell migration is essential for various physiological processes such as embryonic development, angiogenesis, wound healing, and tumor invasion. In response to extracellular and cell adhesion signals, cells acquire a polarized morphology with a leading edge at their front and a trailing tail at the rear. This front-rear polarity is established along the directional axis, with signaling molecules, adhesions, and the cytoskeleton distributed asymmetrically. The signaling molecules that control polarity include the Rho family GTPases, including Rac1. The Rac exchange factor Tiam1 participates in polarized cell migration. Tiam1 binds to integrins through talin and regulates Rac1 activity and adhesion turnover for polarized migration.
Tiam 1 contains a Dbl homology (DH) or RhoGEF domain which consists of an ~ 150 amino acid region that induces Rho family GTPases to displace GDP. This effectively activates the Rho GTPase by allowing GTP binding, which is in excess over GDP in the cell. The DH domain is invariably preceded by a pleckstrin homology (PH) domain. While not absolutely required for catalysis of nucleotide exchange, the PH domain appears to greatly increase catalytic efficiency in many cases.
Tiam1 (T-cell lymphoma invasion and metastasis inducing protein 1) was originally identified as an invasion-inducing gene. Thereafter several studies supported the suggestion that the Tiam1-Rac signaling pathway may be involved in the invasion and metastasis of tumor cells.

Synonyms:

TIAM-1