

Product datasheet

Tiam1 Activation Assay Kit ab211173

[2 Images](#)

Overview

Product name	Tiam1 Activation Assay Kit
Sample type	Tissue, Adherent cells, Suspension cells
Species reactivity	Reacts with: Human
Product overview	Tiam 1 Activation Assay Kit (ab211173) uses nucleotide-free Rac1 G15A agarose beads to selectively isolate and pull down the active form of Rac-GEF from cell or tissue lysates. The precipitated active Rac-GEF is subsequently detected by immunoblot analysis using an anti Tiam-1 antibody, which reacts with the human protein. Tiam-1 is a specific GEF known to activate Rac1.

Features: 1) non radioactive assay format; 2) fast results: 1 hour assay plus electrophoresis/blotting time; 3) includes Cdc42 positive control; 4) pink colored agarose beads for easy identification during washing and aspiration steps.

Notes	<p>Small GTP-binding proteins (or GTPases) are a family of proteins that serve as molecular regulators in signaling transduction pathways.</p> <p>Rac, a 21 kDa protein, belongs to the family of Rho GTPases and is involved in regulating a variety of biological pathways that such as cell motility, cell division, gene transcription, and cell transformation. Like other small GTPases, Rac influences molecular events by cycling between an inactive GDP-bound form and an active GTP-bound form.</p> <p>The cycling process between GDP-bound and GTP-bound state is regulated primarily by two distinct families of proteins: guanine nucleotide exchange factors (GEFs), which activate Rho proteins by catalyzing the exchange of GDP for GTP, and the GTPase activating proteins or GAPs, which negatively regulate GTPase function by stimulating GTP hydrolysis.</p> <p>Abcam has not and does not intend to apply for the REACH Authorisation of customers' uses of products that contain European Authorisation list (Annex XIV) substances.</p> <p>It is the responsibility of our customers to check the necessity of application of REACH Authorisation, and any other relevant authorisations, for their intended uses.</p>
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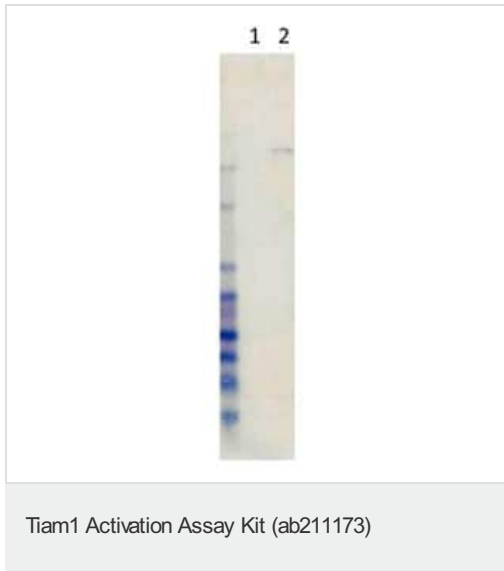
Properties

Storage instructions	Store at -20°C. Please refer to protocols.
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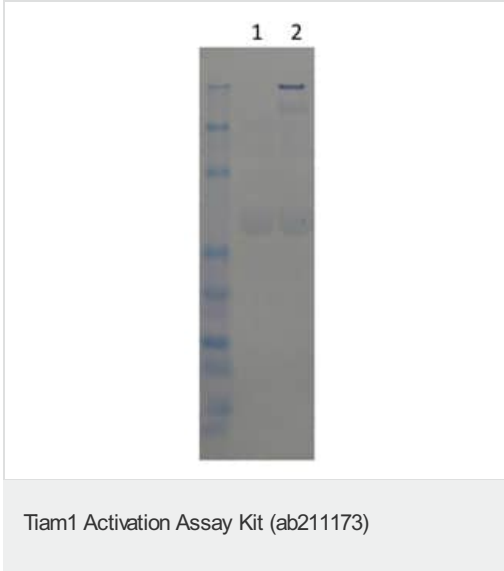
Components	20 tests
5X Assay/Lysis Buffer	1 x 30ml
Anti-Tiam1 Rabbit polyclonal antibody	1 x 40µl
Rac1 G15A Agarose Beads (Active Rac-GEF)	1 x 800µl

Function	Modulates the activity of RHO-like proteins and connects extracellular signals to cytoskeletal activities. Acts as a GDP-dissociation stimulator protein that stimulates the GDP-GTP exchange activity of RHO-like GTPases and activates them. Activates RAC1, CDC42, and to a lesser extent RHOA.
Tissue specificity	Found in virtually all analyzed tumor cell lines including B- and T-lymphomas, neuroblastomas, melanomas and carcinomas.
Sequence similarities	Belongs to the TIAM family. Contains 1 DH (DBL-homology) domain. Contains 1 PDZ (DHR) domain. Contains 2 PH domains. Contains 1 RBD (Ras-binding) domain.
Cellular localization	Cell junction. Presence of KRIT1, CDH5 and RAP1B is required for its localization to the cell junction.

Images



Tiam1 (Rac-GEF) activation assay in MDA-231 Cells. Active Tiam-1 was pulled down from MDA-231 lysate (2 mg) with Rac1 G15A agarose beads and probed with anti-Tiam1 antibody.



Tiam1 activation assay in 293 cells. 293 cells were transfected with active Tiam1 (ΔN Tiam1). Active Tiam1 in lysate was pulled down with Rac1 G15A agarose beads. Lane 1, Mock Transfection Control. Lane 2, ΔN Tiam1 Transfection.

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