

Rac1/Cdc42 Activation Assay Kit

Rac1/Cdc42 Activation Assay Combo Kit

CATALOG #
AAA44550

PRODUCT SYNONYMS

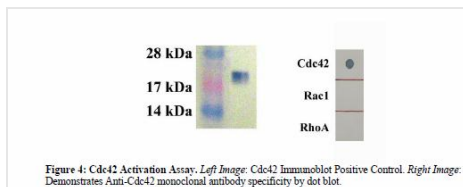
Rac1/Cdc42 Activation; Rac1/Cdc42 Activation Assay Combo Kit; Rac1/Cdc42 Activation assay kit

PRODUCT SPECIFICATIONS

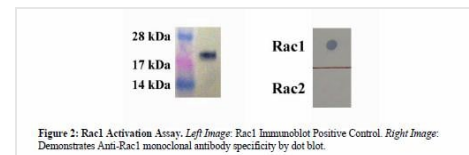
Preparation and Storage

Store all kit components at -20 degree C until their expiration dates. Avoid multiple freeze/thaw cycles.

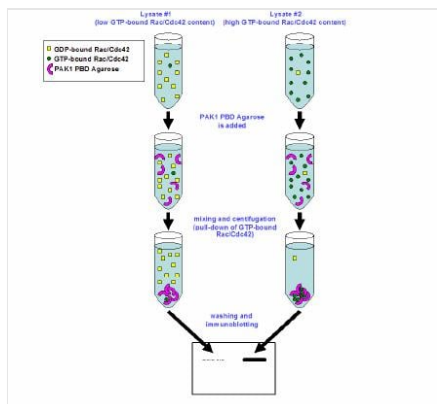
IMAGES



Application Data



Application Data



Application Data



Application Data

ADDITIONAL INFORMATION

Related Product Information for Rac1/Cdc42 Activation assay kit

Background/Introduction: Small GTP-binding proteins (or GTPases) are a family of proteins that serve as molecular regulators in signaling transduction pathways. Rac1 and Cdc42, 21 kDa proteins, belong to the family of Rho GTPases regulates a variety of biological response pathways that include cell motility, cell division, gene transcription, and cell transformation. Like other small GTPases, Rac1 and Cdc42 regulate molecular events by cycling between an inactive GDP-bound form and an active GTP-bound form. In its active (GTP-bound) state, Rac1 or Cdc42 binds specifically to the p21-binding domain (PBD) of p21-activated protein kinase (PAK) to control downstream signaling cascades. Rac1/Cdc42 Activation Assay utilizes PAK PBD Agarose beads to selectively isolate and pull-down the active form of Rac or Cdc42 from purified samples or endogenous lysates. Subsequently, the precipitated GTP-Rac or Cdc42 is detected by western blot analysis using an anti-Rac1 or Cdc42 specific monoclonal antibody (see Figure 3, Figure 5 and Assay Principle). Rac1/Cdc42 Activation Assay Kit provides a simple and fast tool to monitor the activation of Rac1 or Cdc42. The kit includes easily identifiable PAK1 PBD Agarose beads (see Figure 1), pink in color, along with Rac1 and Cdc42 Immunoblot Positive Controls for quick Rac1 or Cdc42 identification. Each kit provides sufficient quantities to perform 20 assays for each small GTPase.

Product Categories/Family for Rac1/Cdc42 Activation assay kit	Cell Signaling and Protein Biology; G Protein Signaling/Small GTPase Assays and Vectors; Small GTPase Research Tools; Small GTPase Activation Assays
References	1. Raftopoulou M., and Hall A. (2004) Dev Biol. 265: 23-32. 2. Bar-Sagi D., and Hall A. (2000) Cell 103: 227-38. 3. Benard, V., Bohl, B. P., and Bokoch, G. M. (1999) J. Biol. Chem. 274, 13198-13204. 1. Chen, H. et al. (2010). Integrity of SOS1/EPS8/AB11 Tri-Complex Determines Ovarian Cancer Metastasis. Cancer Res. 70:9979-9990. 2. Sultana, H. et al. (2010). Anaplasma Phagocytophilum Induces Actin Phosphorylation to Selectively Regulate Gene Transcription in Ixodes Scapularis Ticks. J. Exp. Med. 10.1084/jem.20100276. 3. Pandey, D. et al. (2009). Unraveling a Novel Rac1-Mediated Signaling Pathway that Regulates Cofilin Dephosphorylation and Secretion in Thrombin Stimulated Platelets. Blood 114:415-424. 4. Lorget, M. et al. (2006). Regulation of Epithelial Wound Closure and Intercellular Adhesion by Interaction of AF6 with Actin Cytoskeleton. J. of Cell Science 119:3385-3398.

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: <https://stage.aaabiotech.com/assay-kits/rac1-cdc42-activation/44550>