Rhotekin RBD Agarose Beads

CATALOG NUMBER: STA-412 **STORAGE:** -20ºC

QUANTITY AND CONCENTRATION: 800 µL of 50% Agarose slurry, 400 µg Rhotekin-RBD in 1X PBS, 50% Glycerol

SHELF LIFE: 1 year from receipt under proper storage conditions; avoid multiple freeze thaw cycles

Background

Small GTP-binding proteins (or GTPases) are a family of proteins that serve as molecular regulators in signaling transduction pathways. Rho, a 21 kDa protein, regulating a variety of biological response pathways that include cell growth, cell transformation and tumor invasion. Like other small GTPases, Rho regulates molecular events by cycling between an inactive GDP-bound form and an active GTP-bound form. In its active (GTP-bound) state, Rho binds specifically to the Rho-binding domain (RBD) of Rhotekin to control downstream signaling cascades.

Presentation

Rhotekin RBD Agarose beads, in color, are easy to visualize, minimizing potential loss during washes and aspirations of Rho-GTP pulldown (Figure 1).

Figure 1: Rhotekin-RBD Beads in Color

Activity

Product specifically interacts and precipitaes GTP-bound Rho from cell lysate (Figure 2).

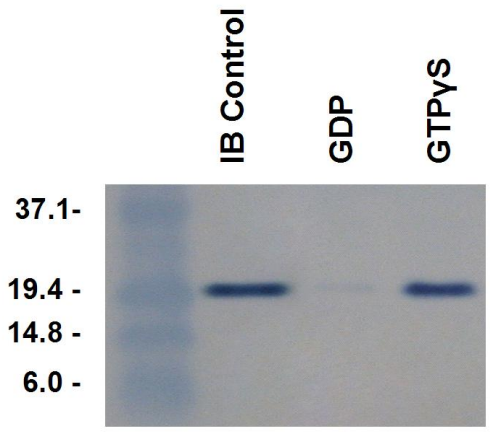

Figure 2: Rho Activation Assay. *Lane 1*, GTPase Immunoblot Positive Control. *Lane 2*, MDA-231 cell lysate loaded with GDP and incubated with Rhotekin RBD Agarose beads. *Lane 3*, MDA-231 cell lysate loaded with GTPγS and incubated with Rhotekin RBD Agarose beads.

References

1. Ren X.D. and Schwartz M. A. (2000) *Methods Enzymol.* **325**, 264-72.

Recent Product Citations

1. Dong, R. et al. (2026). RhoA accelerates atherosclerosis progression by interacting with Hspa5. *Sci Rep*. doi: 10.1038/s41598-025-33741-w.
2. Alam, J. et al. (2014). N-acetylcysteine and the human serum components that inhibit bacterial invasion of gingival epithelial cells prevent experimental periodontitis in mice. *J Periodontal Implant Sci.* **44**:266-273.
3. Sabbatini, M. et al. (2008). Rap1 activation plays a regulatory role in pancreatic amylase secretion. *J. Biol. Chem.* **283**:23884-23894.
4. Sabbatini, M. E. et al. (2010). CCK activates RhoA and Rac1 differentially through G-alpha-13 and G-alpha-q in mouse pancreatic acini. *Am. J. Physiol. Cell Physiol.* **298**:C592-C605.

Warranty

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