# **Rhotekin RBD Agarose Beads**

CATALOG NUMBER: STA-412 STORAGE: -20°C

**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).

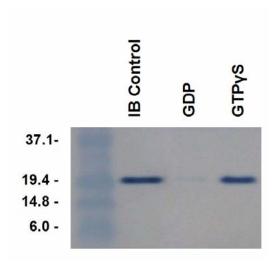


Figure 1: Rhotekin-RBD Beads in Color

## **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*, 293 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. Sabbatini, M. et al. (2008). Rap1 activation plays a regulatory role in pancreatic amylase secretion. *J. Biol. Chem.* **283**:23884-23894.
- 2. 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.

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