PAK1 PBD Agarose Beads

CATALOG NUMBER: STA-411 **STORAGE:** -20ºC

QUANTITY AND CONCENTRATION: 800 µL of 50% Agarose slurry, 400 µg PAK1-PBD 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. Rac, a 21 kDa protein, belongs to the family of Rho GTPases regulating a variety of biological response pathways that include cell motility, cell division, gene transcription, and cell transformation. Like other small GTPases, Rac regulates molecular events by cycling between an inactive GDP-bound form and an active GTP-bound form. In its active (GTP-bound) state, Rac binds specifically to the p21-binding domain (PBD) of p21-activated protein kinase (PAK) to control downstream signaling cascades.

Presentation

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

Figure 1: PAK-PBD Beads in Color

Activity

Product specifically interacts and precipitaes GTP-bound Rac or Cdc 42 from cell lysate (Figures 2 & 3).

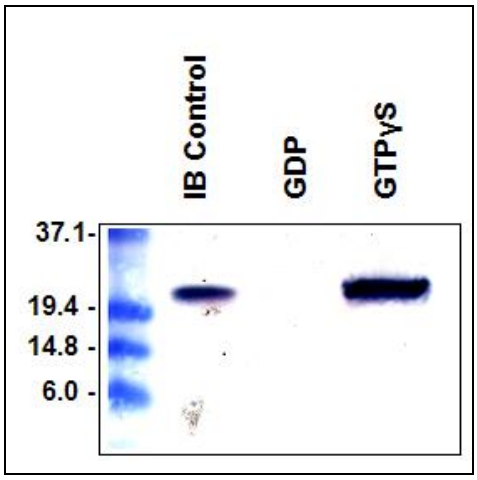

Figure 2: Rac Activation Assay. *Lane 1*, GTPase Immunoblot Positive Control. *Lane 2*, 293 cell lysate loaded with GDP and incubated with PAK PBD Agarose beads. *Lane 3*, 293 cell lysate loaded with GTPγS and incubated with PAK-1 PBD Agarose beads. Samples were immunoblotted with anti-Rac antibody.

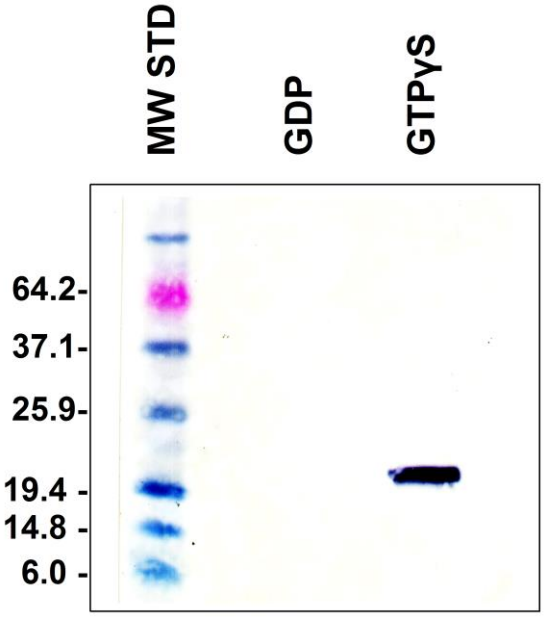

Figure 3: Cdc42 Activation Assay. *Lane 1*, MW Standard. *Lane 2*, 293 cell lysate loaded with GDP and incubated with PAK PBD Agarose beads. *Lane 3*, 293 cell lysate loaded with GTPγS and incubated with PAK-1 PBD Agarose beads. Samples were immunoblotted with anti-Cdc42 antibody.

References

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Recent Product Citations

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Warranty

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