

Rap1GAP (h2): 293T Lysate: sc-177841

BACKGROUND

Rap1 GTPase activating protein (Rap1GAP) specifically stimulates GTP hydrolytic activity of the monomeric G protein Rap1. Physical interaction between $G_{\alpha\zeta}$, a member of the G_i family of trimeric G proteins, and Rap1GAP blocks the ability of regulators of G protein signaling to stimulate GTP hydrolysis of the α subunit, and also attenuates the ability of activated $G_{\alpha\zeta}$ to inhibit adenylyl cyclase. Rap1GAP is expressed in brain, kidney and pancreas and may act as a signal integrator to somehow coordinate and/or integrate $G_{\alpha\zeta}$ signaling and Rap1 signaling in cells. A novel isoform of Rap1GAP, Rap1GAPII, binds specifically to $G_{\alpha\zeta}$. Stimulation of the G_i -coupled M2 muscarinic receptor translocates Rap1GAPII from the cytosol to the membrane and decreases the amount of GTP-bound Rap1, resulting in the activation of ERK/MAPK.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: RAP1GAP (human) mapping to 1p36.12.

PRODUCT

Rap1GAP (h2): 293T Lysate represents a lysate of human Rap1GAP transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

Rap1GAP (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive Rap1GAP antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.