

Rap 2A. N/A Recombinant Protein N/A
Rap 2A Recombinant G-Protein, G protein

BACKGROUND

Rap2B is a 21 kDa small GTP-binding protein that exhibits 46% identity with Ras proteins and is similarly post-translationally modified by farnesyl and palmitate groups. It colocalizes with several markers of the Golgi complex, thus indicating that its site of function was distinct from that of Rap1A. In contrast to Rap1A, Rap2B protein does not interfere with Ras-induced transformation suggesting that the activity of Rap proteins goes beyond the regulation of Ras protein function. Ras proteins provide a crucial link in the intracellular signalling cascades. Ras proteins are members of the small G protein family. These proteins are characterized by a molecular weight between 20 and 30 kDa, the ability to bind GTP or GDP and a low intrinsic GTPase activity. These proteins relay signals from the plasma membrane activated by receptor tyrosine kinases to the nucleus via a network of serine/threonine kinases. Ras proteins belong to a family of approximately 40 mammalian and 60 non-mammalian proteins. Ras proteins were first discovered as the hyperactive products of mutant Ras genes which promote cancer by disrupting the normal controls on cell proliferation and differentiation; about 30% of human cancers have mutations in a Ras gene.

ACTIVITY

Rap2B protein is provided as a functional G-protein and can be used as a Western blot control for antibodies to Rap2B protein or in assays to study to protein-protein interactions of Rap2B and related proteins with regulatory proteins. Optimal concentration should be evaluated by serial

PURITY

REFERENCES

1. Pizon, V., et al. 'Association of Rap1a and Rap1b proteins with late endocytic/phagocytic compartments and Rap2a with the Golgi complex.' J. Cell. Sci. 1994, 107, 1661-1670
2. Pasheva, E., et al. 'Characterization of the Ras-related RAP2A protein expressed in the baculovirus-insect cell system: processing of the protein in insect cells and comparison with the bacterially produced unprocessed form.' Biochem. Biophys. Res. Commun. 1994, 198, 973-982
3. Ohba, Y., et al. 'Rap2 as a slowly responding molecular switch in the Rap1 signaling cascade.' Mol. Cell Biol. 2000, 20, 6074-6083

ORDERING INFORMATION

CATALOG NUMBER

X1213

SIZE

25 µg

CUSTOMER STORAGE

Product should be stored at -70°C.
Aliquot to avoid freeze/thaw cycles

FORMULATION

Provided in 50mM Tris (pH 7.5) solution containing 150 mM NaCl, 10 mM MgCl₂, 1 mM DTT, 10% glycerol

SHIP CONDITIONS

Ship on dry ice, freeze upon arrival

STABILITY

Products are stable for one year from purchase when stored properly

CONCENTRATION

See vial for concentration

SOURCE

Recombinant full length human Rap1A protein expressed in *e.coli*