



# SZABO SCANDIC

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## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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Rap 1A, N/A Recombinant Protein N/A , Human

**BACKGROUND**

Rap1A is a 21 kDa small GTP-binding protein that antagonizes the Ras transforming activity through tight binding to Ras-GAP. It interferes with Ras-dependent Raf1 activation by inhibiting binding of Ras to the cysteine-rich region of Raf1. This protein is localized in the endoplasmic reticulum, late endosomes, and lysosomes, indicating its potential role in the regulation of intracellular protein degradation. Rap1a contains a C-terminal CLLL motif for post-translational geranylgeranylation and a single site for phosphorylation by protein kinase A. 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.

**ORDERING INFORMATION**

**CATALOG NUMBER**

X1212

**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 MgCl<sub>2</sub>, 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

**COMMENTS**

Rap1A protein is provided as a functional G-protein and can be used as a Western blot control for antibodies to Rap1A protein or in assays to study to protein-protein interactions of Rap1A and related proteins with regulatory proteins.

**REFERENCES**

1. Takai, Y., et al. "Small GTP-binding proteins." *Physiol. Rev.* 2001, 81, 153-208
2. McPhee, I., et al. "Use of an activation-specific probe to show that Rap1A and Rap1B display different sensitivities to activation by forskolin in rat1 cells." *FEBS Lett.* 2000, 477, 213-218
3. Herrmann, C., et al. "Differential interaction of the ras family GTP-binding proteins H-Ras, Rap1A and R-Ras with the putative effector molecules Raf kinase and Ral-guanine nucleotide exchange factor." *J. Biol. Chem.* 1996, 271, 6794-6800.