

Recombinant Human Rac1 protein ab89246

1 References [1 图像](#)

描述

产品名称	重组人Rac1蛋白
纯度	> 95 % SDS-PAGE. ab89246 is purified using conventional chromatography techniques. Endotoxin: < 1.0 EU per 1 microgram of protein (determined by LAL method).
表达系统	Escherichia coli
蛋白长度	Full length protein
无动物成分	No
性质	Recombinant
种属	Human

技术指标

Our **Abpromise guarantee** covers the use of **ab89246** in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

应用	SDS-PAGE
形式	Liquid

制备和贮存

稳定性和存储	Shipped at 4°C. Upon delivery aliquot and store at -20°C or -80°C. Avoid repeated freeze / thaw cycles. pH: 7.50 Constituents: 0.0154% DTT, 0.316% Tris HCl, 0.0292% EDTA, 10% Glycerol (glycerin, glycerine)
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常规信息

功能	Plasma membrane-associated small GTPase which cycles between active GTP-bound and inactive GDP-bound states. In its active state, binds to a variety of effector proteins to regulate cellular responses such as secretory processes, phagocytosis of apoptotic cells, epithelial cell polarization and growth-factor induced formation of membrane ruffles. Rac1 p21/rho GDI heterodimer is the active component of the cytosolic factor sigma 1, which is involved in
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stimulation of the NADPH oxidase activity in macrophages (By similarity). Essential for the SPATA13-mediated regulation of cell migration and adhesion assembly and disassembly. Isoform B has an accelerated GEF-independent GDP/GTP exchange and an impaired GTP hydrolysis, which is restored partially by GTPase-activating proteins. It is able to bind to the GTPase-binding domain of PAK but not full-length PAK in a GTP-dependent manner, suggesting that the insertion does not completely abolish effector interaction.

组织特异性

Isoform B is predominantly identified in skin and epithelial tissues from the intestinal tract. Its expression is elevated in colorectal tumors at various stages of neoplastic progression, as compared to their respective adjacent tissues.

序列相似性

Belongs to the small GTPase superfamily. Rho family.

结构域

The effector region mediates interaction with DEF6.

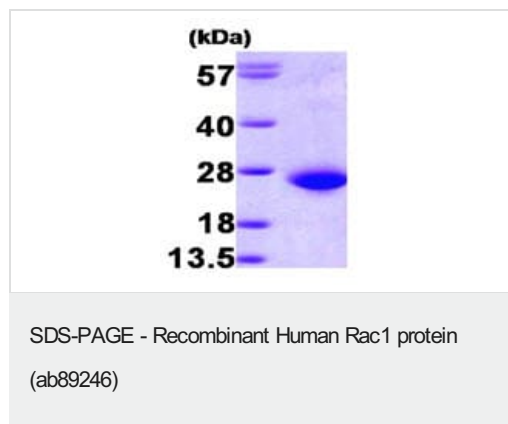
翻译后修饰

AMPylation at Tyr-32 and Thr-35 are mediated by bacterial enzymes in case of infection by *H.somnus* and *V.parahaemolyticus*, respectively. AMPylation occurs in the effector region and leads to inactivation of the GTPase activity by preventing the interaction with downstream effectors, thereby inhibiting actin assembly in infected cells. It is unclear whether some human enzyme mediates AMPylation; FICD has such ability in vitro but additional experiments remain to be done to confirm results in vivo.

细胞定位

Cell membrane. Melanosome. Inner surface of plasma membrane possibly with attachment requiring prenylation of the C-terminal cysteine (By similarity). Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

图片



15% SDS-PAGE showing ab89246 at approximately 23.6kDa (3μg).

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