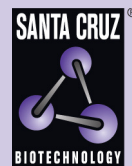


ACK (C-20): sc-323



The Power to Question

BACKGROUND

The Ras-related Rho subfamily of GTP-binding proteins (p21s), which includes Rho, Rac and Cdc42Hs, is implicated in different aspects of cytoskeletal organization. These proteins resemble Ras p21 in that their active GTP-bound form is inactivated by intrinsic hydrolysis of the GTP to GDP, which can be stimulated by GTPase-activating proteins (GAPs). ACK, a tyrosine kinase that specifically binds Cdc42Hs in its GTP-bound form, has been described. This binding is mediated by a unique sequence of 47 amino acids C-terminal to an SH3 domain and inhibits both the intrinsic and GAP-stimulated GTPase activity of Cdc42Hs. These findings suggest that ACK may represent a new class of proteins that sustains the GTP-bound active form of the Rho subfamily of GTP binding proteins and which is directly linked to a tyrosine phosphorylation pathway.

CHROMOSOMAL LOCATION

Genetic locus: TNK2 (human) mapping to 3q29; Tnk2 (mouse) mapping to 16 B3.

SOURCE

ACK (C-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of ACK of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-323 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ACK (C-20) is recommended for detection of ACK of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000). ACK (C-20) is also recommended for detection of ACK in additional species, including canine, bovine and porcine.

Suitable for use as control antibody for ACK siRNA (h): sc-29632, ACK siRNA (m): sc-29633, ACK shRNA Plasmid (h): sc-29632-SH, ACK shRNA Plasmid (m): sc-29633-SH, ACK shRNA (h) Lentiviral Particles: sc-29632-V and ACK shRNA (m) Lentiviral Particles: sc-29633-V.

Molecular Weight of ACK: 60/115/119 kDa.

Positive Controls: MM-142 cell lysate: sc-2246, H4 cell lysate: sc-2408 or EOC 20 whole cell lysate: sc-364187.

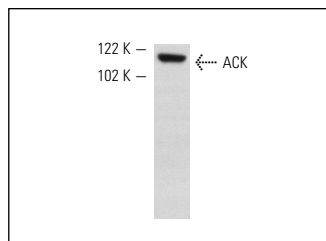
STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

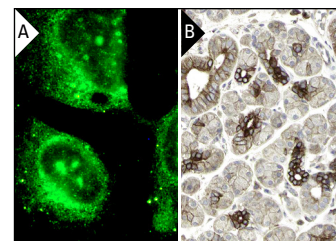
RESEARCH USE

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

DATA



ACK (C-20): sc-323. Western blot analysis of ACK expression in H4 whole cell lysate.



ACK (C-20): sc-323. Immunofluorescence staining of methanol-fixed H4 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human salivary gland tissue showing cytoplasmic staining of glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

SELECT PRODUCT CITATIONS

- Formichini, E., et al. 1998. Expression of G α proteins in the developing, denervated, or injured rat molar tooth. *Anat. Embryol.* 198: 515-522.
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Try **ACK (A-11): sc-28336**, our highly recommended monoclonal alternative to ACK (C-20). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **ACK (A-11): sc-28336**.