

Asef (H-140): sc-33218

BACKGROUND

The adenomatous polyposis coli gene (APC) is mutated in familial adenomatous polyposis and in sporadic colorectal tumors. Familial adenomatous polyposis is a dominantly inherited disease characterized by multiple adenomatous polyps in the colon. The human full-length Asef cDNA encodes a protein of 619 amino acids with motifs found in the Dbl family of proteins. The APC gene product binds through its armadillo repeat domain to a Rac-specific guanine nucleotide exchange factor (GEF), termed APC-stimulated guanine nucleotide exchange factor (Asef). Endogenous APC has been shown to co-localize with Asef in mouse colon epithelial cells and neuronal cells. Furthermore, APC has been shown to enhance the GEF activity of Asef and stimulate Asef-mediated cell flattening, membrane ruffling and lamellipodia formation in MDCK cells, suggesting that the APC-Asef complex may regulate the actin cytoskeletal network, cell morphology and migration, and neuronal function. Full-length APC protein is located in both the membrane/cytoskeletal and the nuclear fractions.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: ARHGEF4 (human) mapping to 2q21.1; Arhgef4 (mouse) mapping to 1 B.

SOURCE

Asef (H-140) is a rabbit polyclonal antibody raised against amino acids 518-657 mapping at the C-terminus of Asef 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.

APPLICATIONS

Asef (H-140) is recommended for detection of Asef isoforms 1, 2 and 3 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Asef (H-140) is also recommended for detection of Asef isoforms 1, 2 and 3 in additional species, including equine and canine.

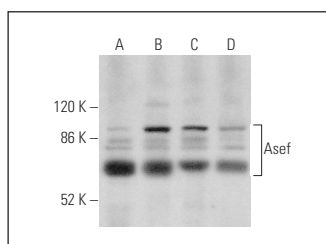
Suitable for use as control antibody for Asef siRNA (h): sc-41696, Asef siRNA (m): sc-41697, Asef shRNA Plasmid (h): sc-41696-SH, Asef shRNA Plasmid (m): sc-41697-SH, Asef shRNA (h) Lentiviral Particles: sc-41696-V and Asef shRNA (m) Lentiviral Particles: sc-41697-V.

Positive Controls: mouse heart extract: sc-2254, mouse testis extract: sc-2405 or mouse placenta extract: sc-364247.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Asef (H-140): sc-33218. Western blot analysis of Asef expression in mouse heart (A), mouse testis (B), mouse placenta (C) and mouse skeletal muscle (D) tissue extracts.

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.