

CapG (C-20): sc-33084

BACKGROUND

Caldesmon, Filamin 1, Nebulin, Plastin, ADF, Gelsolin, CapG, Dematin and Cofilin are differentially expressed Actin-binding proteins. Both muscular (CDh) and non-muscular (CD1) forms of Caldesmon bind to Actin as well as to Calmodulin and Myosin. CDh is expressed predominantly on thin filaments in smooth muscle, whereas CD1 is widely expressed in non-muscle tissues and cells. CapG, also designated Actin-regulatory protein and macrophage-capping protein, is a macrophage-specific protein that reversibly blocks the barbed ends of Actin filaments, but does not sever preformed ones. The interactions of CapG with Actin may be important in the regulation of nuclear and cytoplasmic structures. CapG is a calcium-sensitive DNA-binding protein that plays a role in macrophage function. It is expressed in macrophages and macrophage-like cells and can localize both to the nucleus and the cytoplasm.

CHROMOSOMAL LOCATION

Genetic locus: CAPG (human) mapping to 2p11.2; Capg (mouse) mapping to 6 C1.

SOURCE

CapG (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of CapG 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-33084 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

CapG (C-20) is recommended for detection of CapG 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).

CapG (C-20) is also recommended for detection of CapG in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for CapG siRNA (h): sc-44920, CapG siRNA (m): sc-44921, CapG shRNA Plasmid (h): sc-44920-SH, CapG shRNA Plasmid (m): sc-44921-SH, CapG shRNA (h) Lentiviral Particles: sc-44920-V and CapG shRNA (m) Lentiviral Particles: sc-44921-V.

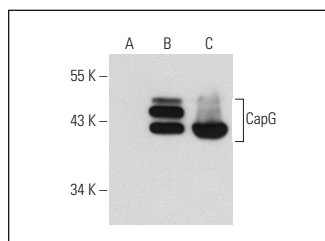
Molecular Weight of CapG: 39 kDa.

Positive Controls: CapG (h): 293T Lysate: sc-170174, CapG (m2): 293T Lysate: sc-118990 or U-937 cell lysate: sc-2239.

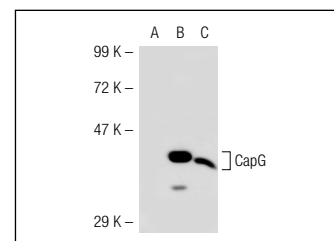
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



CapG (C-20): sc-33084. Western blot analysis of CapG expression in non-transfected 293T: sc-117752 (A), human CapG transfected 293T: sc-170174 (B) and U-937 (C) whole cell lysates.



CapG (C-20): sc-33084. Western blot analysis of CapG expression in non-transfected 293T: sc-117752 (A), mouse CapG transfected 293T: sc-118990 (B) and HL-60 (C) whole cell lysates.

SELECT PRODUCT CITATIONS

- Hiromura, M., et al. 2007. Action mechanism of bis(allyloxynadium(IV)) as a novel potent Insulin-mimetic complex: regulation of GLUT4 translocation and FoxO1 transcription factor. *J. Biol. Inorg. Chem.* 12: 1275-1287.
- Nomura, H., et al. 2008. Clinical significance of gelsolin-like actin-capping protein expression in oral carcinogenesis: an immunohistochemical study of premalignant and malignant lesions of the oral cavity. *BMC Cancer* 8: 39.

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS
Satisfaction
Guaranteed

Try **CapG (H-9): sc-166428** or **CapG (D-5): sc-365472**, our highly recommended monoclonal alternatives to CapG (C-20).