CapG (D-5): sc-365472

**BACKGROUND**

Caldesmon, Filamin 1, Nebulin, Plastin, ADF, Gelsolin, CapG, Dematin and Coflin are differentially expressed actin-binding proteins. Both muscular (CDh) and non-muscular (CD1) forms of Caldesmon bind to Actin as well as to Calfmodulin 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 macrophase function. It is expressed in macrophages and macrophage-like cells and can localize both to the nucleus and the cytoplasm.

**REFERENCES**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

CapG (D-5) is a mouse monoclonal antibody raised against amino acids 256-340 mapping at the C-terminus of CapG of human origin.

**PRODUCT**

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

**STORAGE**

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

**APPLICATIONS**

CapG (D-5) is recommended for detection of CapG of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lystate)], 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).


**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGx BP-HRP: sc-516102 or m-IgGx BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGx BP-FITC: sc-516140 or m-IgGx BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Hard-set Mounting Medium: sc-24941 or UltraCruz Hard-set Mounting Medium: sc-359850.

**DATA**

[Image of Western blot analysis of CapG expression in HeLa cells and NIH/3T3 cells]

**RESEARCH USE**

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

**PROTOCOLS**

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