

MACF1 (H-146): sc-68428

BACKGROUND

MACF1 (microtubule-actin cross-linking factor 1) is a 5,327 amino acid protein that is encoded by the human gene MACF1. MACF1 belongs to the plakin or cytolinker family and contains one actin-binding domain, 2 CH (calponin-homology) domains, 2 EF-hand domains, one SH3 domain and 37 spectrin repeats. MACF1 is an F-actin-binding protein which may play a role in cross-linking actin to other cytoskeletal proteins and also binds to microtubules. The spectrin repeats, an important feature found in many proteins involved in cytoskeletal structure, form a three helix bundle with the second helix (with proline interrupts in some sequences). MACF1 is a cytoplasmic protein expressed mainly in lung, brain, spinal cord, skeletal and cardiac muscle, and skin.

REFERENCES

1. Kakinuma, T., Ichikawa, H., Tsukada, Y., Nakamura, T. and Toh, B.H. 2004. Interaction between p230 and MACF1 is associated with transport of a glycosyl phosphatidyl inositol-anchored protein from the Golgi to the cell periphery. *Exp. Cell Res.* 298: 388-398.
2. Lin, C.M., Chen, H.J., Leung, C.L., Parry, D.A. and Liem, R.K. 2005. Microtubule actin crosslinking factor 1b: a novel plakin that localizes to the Golgi complex. *J. Cell Sci.* 118: 3727-3738.

CHROMOSOMAL LOCATION

Genetic locus: MACF1 (human) mapping to 1p34.3; Macf1 (mouse) mapping to 4 D2.2.

SOURCE

MACF1 (H-146) is a rabbit polyclonal antibody raised against amino acids 465-610 mapping near the N-terminus of MACF1, isoform 1 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

MACF1 (H-146) is recommended for detection of MACF1 isoforms 1, 2, 3 and 5 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).

MACF1 (H-146) is also recommended for detection of MACF1 isoforms 1, 2, 3 and 5 in additional species, including equine, canine, bovine and porcine.

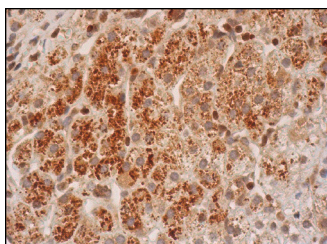
Suitable for use as control antibody for MACF1 siRNA (h): sc-75724, MACF1 siRNA (m): sc-75725, MACF1 shRNA Plasmid (h): sc-75724-SH, MACF1 shRNA Plasmid (m): sc-75725-SH, MACF1 shRNA (h) Lentiviral Particles: sc-75724-V and MACF1 shRNA (m) Lentiviral Particles: sc-75725-V.

Molecular Weight of MACF1: 608 kDa.

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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



MACF1 (H-146): sc-68428. Immunoperoxidase staining of formalin fixed, paraffin-embedded human adrenal gland tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

1. Schwan, C., Stecher, B., Tzivelekidis, T., van Ham, M., Rohde, M., Hardt, W.D., Wehland, J. and Aktories, K. 2009. Clostridium difficile toxin CDT induces formation of microtubule-based protrusions and increases adherence of bacteria. *PLoS Pathog.* 5: e1000626.

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.

PROTOCOLS

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


 MONOS
Satisfaction
Guaranteed

Try **MACF1 (A-3): sc-377532** or **MACF1 (H-12): sc-377533**, our highly recommended monoclonal alternatives to MACF1 (H-146).