MACF1 (M-244): sc-68430



The Power to Overtion

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, two CH (calponin-homology) domains, two EF-hand domains, one SH3 domain and thirty-seven 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

- 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.
- 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.
- 3. Chen, H.J., Lin, C.M., Lin, C.S., Perez-Olle, R., Leung, C.L. and Liem, R.K. 2006. The role of microtubule Actin cross-linking factor 1 (MACF1) in the Wnt signaling pathway. Genes Dev. 20: 1933-1945.
- Trinidad, J.C., Specht, C.G., Thalhammer, A., Schoepfer, R. and Burlingame, A.L. 2006. Comprehensive identification of phosphorylation sites in postsynaptic density preparations. Mol. Cell Proteomics. 5: 914-922.
- Dai, J., Jin, W.H., Sheng, Q.H., Shieh, C.H., Wu, J.R. and Zeng, R. 2007. Protein phosphorylation and expression profiling by Yin-yang multidimensional liquid chromatography (yin-yang MDLC) mass spectrometry. J. Proteome Res. 6: 250-262.
- Munton, R.P., Tweedie-Cullen, R., Livingstone-Zatchej, M., Weinandy, F., Waidelich, M., Longo, D., Gehrig, P., Potthast, F., Rutishauser, D., Gerrits, B., Panse, C., Schlapbach, R. and Mansuy, I.M. 2007. Qualitative and quantitative analyses of protein phosphorylation in naive and stimulated mouse synaptosomal preparations. Mol. Cell Proteomics 6: 283-293.

CHROMOSOMAL LOCATION

Genetic locus: Macf1 (mouse) mapping to 4 D2.2.

SOURCE

MACF1 (M-244) is a rabbit polyclonal antibody raised against amino acids 1997-2240 mapping within an internal region of MACF1 of mouse origin.

PRODUCT

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

APPLICATIONS

MACF1 (M-244) is recommended for detection of MACF1 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

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

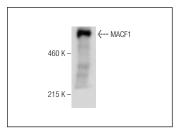
Molecular Weight of MACF1: 608 kDa.

Positive Controls: mouse brain extract: sc-2253.

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



MACF1 (M-244): sc-68430. Western blot analysis of MACF1 expression in mouse brain tissue extract

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.



Try MACF1 (A-3): sc-377532 or MACF1 (H-12): sc-377533, our highly recommended monoclonal alternatives to MACF1 (M-244).