SANTA CRUZ BIOTECHNOLOGY, INC.

Macrophage Marker (MAC387): sc-66204

BACKGROUND

Blood consists of a solid component that includes erythrocytes, leukocytes and platelets, and a liquid component known as plasma, which is a buffered solution of proteins and salts. Innate and adaptive immune responses rely on the function of leukocytes, which are nucleated white blood cells that destroy invading cells and remove debris. White blood cells, also designated polymorphonuclear leukocytes, include granulocytes, monocytes and mast cell precursors. Macrophages are tissue-localized, differentiated cells derived from circulating monocytes. Along with circulating neutrophils, macrophages are phagocytic cells that engulf antibody-coated pathogens, which are subsequently degraded in intracellular vesicles. Tissue localized macrophages can target a spectrum of bacterial pathogens without requiring previous exposure.

SOURCE

Macrophage Marker (MAC387) is a mouse monoclonal antibody raised against peripheral blood monocyte components of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Macrophage Marker (MAC387) is available conjugated to agarose (sc-66204 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-66204 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-66204 PE), fluorescein (sc-66204 FITC), Alexa Fluor® 488 (sc-66204 AF488), Alexa Fluor® 546 (sc-66204 AF546), Alexa Fluor® 594 (sc-66204 AF594) or Alexa Fluor® 647 (sc-66204 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-66204 AF680) or Alexa Fluor® 790 (sc-66204 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

STORAGE

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

PROTOCOLS

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

APPLICATIONS

Macrophage Marker (MAC387) is recommended for detection of macrophages 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), flow cytometry (1 µg per 1 x 10^6 cells) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Molecular Weight of Macrophage Marker: 86 kDa.

Positive Controls: HL-60 + DMSO cell lysate: sc-24703 or HL-60 whole cell lysate: sc-2209.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

SELECT PRODUCT CITATIONS

1. Yu, K., et al. 2008. TSP-1 secreted by bone marrow stromal cells contributes to retinal ganglion cell neurite outgrowth and survival. PLoS ONE 3: e2470.
2. Yu, T.S., et al. 2010. The cannabinoid receptor type 2 is time-dependently expressed during skeletal muscle wound healing in rats. Int. J. Legal Med. 124: 397-404.
3. Busnelli, M., et al. 2013. Diet induced mild hypercholesterolemia in pigs: local and systemic inflammation, effects on vascular injury-rescue by high-dose statin treatment. PLoS ONE 8: e80588.
4. Fan, Y.Y., et al. 2013. Time-dependent expression and distribution of Egr-1 during skeletal muscle wound healing in rats. J. Mol. Histol. 44: 75-81.
5. Zhang, S.T., et al. 2013. Nrf1 is time-dependently expressed and distributed in the distinct cell types after trauma to skeletal muscles in rats. Histol. Histopathol. 28: 725-735.
6. Fan, Y.Y., et al. 2014. The time-dependent expression of α7nAChR during skeletal muscle wound healing in rats. Int. J. Legal Med. 128: 779-786.
7. Topdag, M., et al. 2014. The effect of etanercept and methylprednisolone on functional recovery of the facial nerve after crush injury. Otol. Neurotol. 35: 1277-1283.
8. Yu, T.S., et al. 2016. Time-dependent expression of MMP-2 and TIMP-2 after rats skeletal muscle contusion and their application to determine wound age. J. Forensic Sci. 61: 527-533.
9. Du, C., et al. 2016. Hyperbranched polyglycerol is superior to glucose for long-term preservation of peritoneal membrane in a rat model of chronic peritoneal dialysis. J. Transl. Med. 14: 338.
10. Benli, E., et al. 2017. The effect of tadalafil therapy on kidney damage caused by sepsis in a polymicrobial septic model induced in rats: a biochemical and histopathological study. Int. Braz. J. Urol. 43: 345-355.
11. Meizarini, A., et al. 2018. Anti-inflammatory properties of a wound dressing combination of zinc oxide and turmeric extract. Vet. World 11: 25-29.

RESEARCH USE

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