SANTA CRUZ BIOTECHNOLOGY, INC.

c-Fms/CSF-1R (H-300): sc-13949

SANTA CRUZ BIOTECHNOLOGY
The Power to Question

BACKGROUND

c-Fms/CSF-1R, also designated macrophage colony-stimulating factor receptor (M-CSFR), FIM2 or CD115, is a transmembrane tyrosine kinase receptor belonging to the CSF1/PDGF receptor family. It is encoded by the c-Fms proto-oncogene and is expressed in mononuclear phagocytes, oocytes, decidual cells, trophoblastic cells and some myoblasts. It is important for growth and differentiation of myeloid cells and its function can be regulated by SLAP-2. c-Fms/CSF-1R is responsible for mediating all of the functions of M-CSF. M-CSF is a glycoprotein required for the proliferation and differentiation of mononuclear phagocytes, including osteoclasts. M-CSF has also been identified as an important mediator of the inflammatory response and can regulate the release of proinflammatory cytokines from macrophages.

CHROMOSOMAL LOCATION

Genetic locus: CSF1R (human) mapping to 5q32; Csf1r (mouse) mapping to 18 E1.

SOURCE

c-Fms/CSF-1R (H-300) is a rabbit polyclonal antibody raised against amino acids 11-310 mapping near the N-terminus of c-Fms/CSF-1R 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.

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.

APPLICATIONS

c-Fms/CSF-1R (H-300) is recommended for detection of c-Fms/CSF-1R 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).

Suitable for use as control antibody for c-Fms/CSF-1R siRNA (h): sc-29220, c-Fms/CSF-1R siRNA (m): sc-29847, c-Fms/CSF-1R shRNA Plasmid (h): sc-29220-SH, c-Fms/CSF-1R shRNA Plasmid (m): sc-29847-SH, c-Fms/CSF-1R shRNA (h) Lentiviral Particles: sc-29220-V and c-Fms/CSF-1R shRNA (m) Lentiviral Particles: sc-29847-V.

Molecular Weight of unprocessed c-Fms/CSF-1R: 130 kDa.

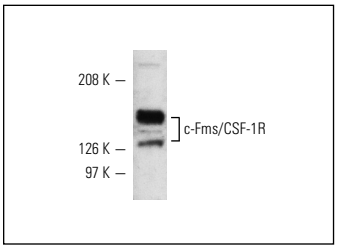
Molecular Weight of processed c-Fms/CSF-1R: 165 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, THP-1 cell lysate: sc-2238 or HL-60 whole cell lysate: sc-2209.

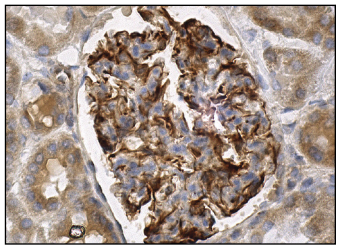
RECOMMENDED SECONDARY REAGENTS

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



c-Fms/CSF-1R (H-300): sc-13949. Western blot analysis of c-Fms/CSF-1R expression in RAW 264.7 whole cell lysate.



c-Fms/CSF-1R (H-300): sc-13949. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing membrane staining of glomerular cells and cytoplasmic staining of cells in tubules.

SELECT PRODUCT CITATIONS

1. Fuhrman, B., et al. 2008. Ox-LDL induces monocyte-to-macrophage differentiation *in vivo:* Possible role for the macrophage colony stimulating factor receptor (M-CSF-R). Atherosclerosis 196: 598-607.
2. Hiyoshi, M., et al. 2008. Interaction between Hck and HIV-1 Nef negatively regulates cell surface expression of M-CSF receptor. Blood 111: 243-250.
3. Xie, R., et al. 2008. Osteoclast differentiation during experimental tooth movement by a short-term force application: an immunohistochemical study in rats. Acta Odontol. Scand. 66: 314-320.
4. Holmes, K., et al. 2010. VEGF stimulates RCAN1.4 expression in endothelial cells via a pathway requiring Ca^{2+}/calcineurin and protein kinase C-δ. PLoS ONE 5: e11435.
5. Hoshino, S., et al. 2014. Macrophage colony-stimulating factor induces prolactin expression in rat pituitary gland. Zoolog. Sci. 31: 390-397.