SANTA CRUZ BIOTECHNOLOGY, INC.

c-Fms/CSF-1R (B-8): sc-46662

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 (B-8) is a mouse monoclonal antibody raised against amino acids 11-310 of c-Fms/CSF-1R of human origin.

PRODUCT

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

c-Fms/CSF-1R (B-8) is available conjugated to agarose (sc-46662 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-46662 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-46662 PE), fluorescein (sc-46662 FITC), Alexa Fluor® 488 (sc-46662 AF488), Alexa Fluor® 546 (sc-46662 AF546), Alexa Fluor® 594 (sc-46662 AF594) or Alexa Fluor® 647 (sc-46662 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-46662 AF680) or Alexa Fluor® 790 (sc-46662 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

c-Fms/CSF-1R (B-8) is recommended for detection of c-Fms/CSF-1R 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 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.

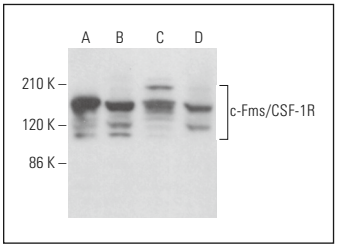
Molecular Weight of processed c-Fms/CSF-1R: 165 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, THP-1 cell lysate: sc-2238 or Daudi cell lysate: sc-2415.

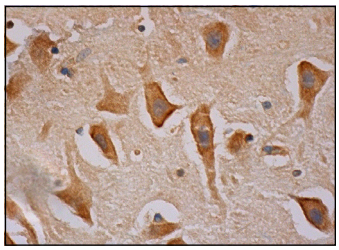
STORAGE

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

DATA



c-Fms/CSF-1R (B-8): sc-46662. Western blot analysis of c-Fms/CSF-1R expression in THP-1 (**A**), U-87 MG (**B**), Daudi (**C**) and Hep G2 (**D**) whole cell lysates.



c-Fms/CSF-1R (B-8): sc-46662. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing cytoplasmic and membrane staining of neuronal cells and cytoplasmic staining of glial cells.

SELECT PRODUCT CITATIONS

1. Konno, T., et al. 2014. Haploinsufficiency of CSF-1R and clinicopathologic characterization in patients with HDLS. Neurology 82: 139-148.
2. Trias, E., et al. 2017. Evidence for mast cells contributing to neuromuscular pathology in an inherited model of ALS. JCI Insight 2: e95934.
3. Tripathi, D., et al. 2018. Alcohol enhances type 1 interferon-α production and mortality in young mice infected with *Mycobacterium tuberculosis.* PLoS Pathog. 14: e1007174.
4. Hua, F., et al. 2019. Colony-stimulating factor 1 receptor inhibition blocks macrophage infiltration and endometrial cancer cell proliferation. Mol. Med. Rep. 19: 3139-3147.
5. Zhai, M., et al. 2021. Identification of three significant genes associated with immune cells infiltration in dysfunctional adipose tissue-induced Insulin-resistance of obese patients via comprehensive bioinformatics analysis. Int. J. Endocrinol. 2021: 8820089.
6. Martínez-Carmona, M., et al. 2021. Ly6c as a new marker of mouse blood vessels: qualitative and quantitative analyses on intact and ischemic retinas. Int. J. Mol. Sci. 23: 19.
7. Mad-Adam, N., et al. 2022. Effects of *trans*-(±)-kusunokinin on chemo-sensitive and chemoresistant ovarian cancer cells. Oncol. Lett. 23: 59.
8. Xia, M., et al. 2022. Identification of Hub genes and therapeutic agents for IgA nephropathy through bioinformatics analysis and experimental validation. Front. Med. 9: 881322.
9. Htike, K., et al. 2024. Herbal medicine Ninjinyoeito inhibits RANKL-induced osteoclast differentiation and bone resorption activity by regulating NFκB and MAPK pathway. J. Oral Biosci. 66: 49-57.

RESEARCH USE

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