SANTA CRUZ BIOTECHNOLOGY, INC.

FAS-L (2.1): sc-33716

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Cytotoxic T lymphocyte (CTL)-mediated cytotoxicity constitutes an important component of specific effector mechanisms in immunosurveillance against virus-infected or transformed cells. Two mechanisms appear to account for this activity, one of which is the perforin-based process. Independently, a FAS-based mechanism involves the transducing molecule FAS (also designated Apo-1) and its ligand (FAS-L). The human FAS protein is a cell surface glycoprotein that belongs to a family of receptors that includes CD40, nerve growth factor receptors and tumor necrosis factor receptors. The FAS antigen is expressed on a broad range of lymphoid cell lines, certain of which undergo apoptosis in response to treatment with antibody to FAS. These findings strongly imply that targeted cell death is potentially mediated by the intercellular interactions of FAS with its ligand or effectors, and that FAS may be critically involved in CTL-mediated cytotoxicity.

REFERENCES

1. Henkart, P.A. 1985. Mechanism of lymphocyte-mediated cytotoxicity. Annu. Rev. Immunol. 3: 31-58.
2. Drappa, J., et al. 1993. The FAS protein is expressed at high levels on $CD4^+CD8^+$ thymocytes and activated mature lymphocytes in normal mice but not in the lupus-prone strain, MRL lpr/lpr. Proc. Natl. Acad. Sci. USA 90: 10340-10344.

CHROMOSOMAL LOCATION

Genetic locus: FASLG (human) mapping to 1q24.3.

SOURCE

FAS-L (2.1) is a mouse monoclonal antibody raised against recombinant soluble active extracellular domain of FAS ligand 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.

FAS-L (2.1) is available conjugated to either phycoerythrin (sc-33716 PE) or fluorescein (sc-33716 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

FAS-L (2.1) is recommended for detection of FAS-L of 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) and flow cytometry (1 µg per 1 x 10^6 cells).

Suitable for use as control antibody for FAS-L siRNA (h): sc-29313, FAS-L shRNA Plasmid (h): sc-29313-SH, and FAS-L shRNA (h) Lentiviral Particles: sc-29313-V.

Molecular Weight of soluble FAS-L: 26 kDa.

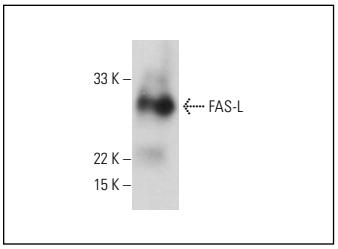
Molecular Weight of FAS-L membrane: 40 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, K-562 whole cell lysate: sc-2203 or HL-60 whole cell lysate: sc-2209.

STORAGE

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

DATA



Western blot analysis of FAS-L expression in HL-60 whole cell lysate immunoprecipitated with FAS-L (2.1): sc-33716 and detected with FAS-L (N-20): sc-834.

SELECT PRODUCT CITATIONS

1. Chang, C.T., et al. 2017. Inhibition of ROS production, autophagy or apoptosis signaling reversed the anticancer properties of *Antrodia salmonea* in triplenegative breast cancer (MDA-MB-231) cells. Food Chem. Toxicol. 103: 1-17.
2. Xu, B., et al. 2018. Effects of harmaline on cell growth of human liver cancer through the p53/p21 and FAS/FAS-L signaling pathways. Oncol. Lett. 15: 1931-1936.
3. Li, X., et al. 2018. Targeting cysteine-rich angiogenic inducer-61 by antibody immunotherapy suppresses growth and migration of non-small cell lung cancer. Exp. Ther. Med. 16: 730-738.
4. Yu, T., et al. 2019. Inhibition of Tet1- and Tet2-mediated DNA demethylation promotes immunomodulation of periodontal ligament stem cells. Cell Death Dis. 10: 780.
5. Ding, J., et al. 2019. FAS-L on decidual macrophages mediates trophoblast apoptosis: a potential cause of recurrent miscarriage. Int. J. Mol. Med. 43: 2376-2386.
6. Yu, T., et al. 2019. Acetylsalicylic acid rescues the immunomodulation of inflamed gingiva-derived mesenchymal stem cells via upregulating FAS-L in mice. Stem Cell Res. Ther. 10: 368.
7. Oh, J.S., et al. 2020. Formononetin induces apoptotic cell death through the suppression of mitogen-activated protein kinase and nuclear factor-κB phosphorylation in FaDu human head and neck squamous cell carcinoma cells. Oncol. Rep. 43: 700-710.
8. Choi, J.W., et al. 2020. Proteome analysis of human natural killer cell derived extracellular vesicles for identification of anticancer effectors. Molecules 25: 5216.

RESEARCH USE

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