SANTA CRUZ BIOTECHNOLOGY, INC.

FAS-L (MFL4): sc-19987

BACKGROUND

Cytotoxic T lymphocyte (CTL)-mediated cytotoxicity constitutes an important component of specific effector mechanisms in immuno-surveillance 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

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3. Podack, E.R., et al. 1991. A central role of perforin in cytolysis? Annu. Rev. Immunol. 9: 129-157.
4. Yagita, H., et al. 1992. Role of perforin in lymphocyte-mediated cytolysis. Adv. Immunol. 51: 215-242.
5. 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.
6. Suda, T., et al. 1993. Molecular cloning and expression of the FAS ligand, a novel member of the tumor necrosis factor family. Cell 75: 1169-1178.
7. Hanabuchi, S., et al. 1994. FAS and its ligand in a general mechanism of T cell-mediated cytotoxicity. Proc. Natl. Acad. Sci. USA 91: 4930-4934.
8. Kägi, D., et al. 1994. FAS and perforin pathways as major mechanisms of T cell-mediated cytotoxicity. Science 265: 528-530.

CHROMOSOMAL LOCATION

Genetic locus: TNFSF6 (human) mapping to 1q23; Tnfsf6 (mouse) mapping to 1 H2.1.

SOURCE

FAS-L (MFL4) is an Armenian hamster monoclonal antibody raised against C57BL/6 mouse FAS-L cDNA-transfected newborn Syrian hamster kidney (BHK) cells.

PRODUCT

Each vial contains 200 µg IgG_3 in 1.0 ml of PBS with <0.1% sodium azide and 0.1% gelatin.

Available azide-free for blocking of thymocyte interactions with CD81, sc-19987 L, 200 µg/0.1 ml.

APPLICATIONS

FAS-L (MFL4) is recommended for detection of FAS-L of mouse and rat origin by 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 (m): sc-35358.

Molecular Weight of soluble FAS-L: 26 kDa.

Molecular Weight of membrane-bound FAS-L: 40 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Immunofluorescence: use goat anti-Armenian hamster IgG-FITC: sc-2446 (diliution range: 1:100-1:400) or goat anti-Armenian hamster IgG-TR: sc-2997 (diliution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.

PROTOCOLS

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