SANTA CRUZ BIOTECHNOLOGY, INC.

FAS (DX2): sc-52524

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, some 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.
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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.
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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. Fulop, P., et al. 2006. Lack of UCP2 reduces FAS-mediated liver injury in ob/ob mice and reveals importance of cell-specific UCP2 expression. Hepatology 44: 592-601.
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CHROMOSOMAL LOCATION

Genetic locus: FAS (human) mapping to 10q24.1; Fas (mouse) mapping to 19 C1.

SOURCE

FAS (DX-2) is a mouse monoclonal antibody raised against human FAS.

RESEARCH USE

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

PRODUCT

Each vial contains 100 µg IgG_1 in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Available as phycoerythrin (sc-52524 PE) or fluorescein (sc-52524 FITC) conjugates for flow cytometry, 100 tests.

APPLICATIONS

FAS (DX2) is recommended for detection of FAS of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and flow cytometry (1 µg per 1 x 10^6 cells).

Suitable for use as control antibody for FAS siRNA (h): sc-29311 and FAS siRNA (h2): sc-44260.

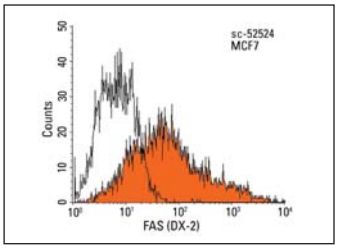
Molecular Weight of FAS: 48 kDa.

Positive Controls: human liver tumor, human breast tumor or Jurkat whole cell lysate: sc-2204.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-mouse IgG-HRP: sc-2005 (dilution range: 1:2000-1:32,000) or Cruz Marker™ compatible goat anti-mouse IgG-HRP: sc-2031 (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.

DATA



FAS (DX-2): sc-52524. Indirect FCM analysis of MCF7 cells stained with FAS (DX-2), followed by PE-conjugated goat anti-mouse IgG: sc-3738. Black line histogram represents the isotype control, normal mouse IgG_1: sc-3877.

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 or our catalog for detailed protocols and support products.