SANTA CRUZ BIOTECHNOLOGY, INC.

FAS-L (NOK-1): sc-19681

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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

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.
3. 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.

CHROMOSOMAL LOCATION

Genetic locus: FASLG (human) mapping to 1q24.3; Fasl (mouse) mapping to 1 H2.1.

SOURCE

FAS-L (NOK-1) is a mouse monoclonal antibody raised against L5178Y mouse T lymphoma cells expressing recombinant human FAS-L.

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. Also available azide-free for neutralizing the cytotoxic effects of FAS-L, sc-19681 L, 200 µg/0.1 ml.

FAS-L (NOK-1) is available conjugated to agarose (sc-19681 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-19681 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-19681 PE), fluorescein (sc-19681 FITC), Alexa Fluor® 488 (sc-19681 AF488), Alexa Fluor® 546 (sc-19681 AF546), Alexa Fluor® 594 (sc-19681 AF594) or Alexa Fluor® 647 (sc-19681 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-19681 AF680) or Alexa Fluor® 790 (sc-19681 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

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

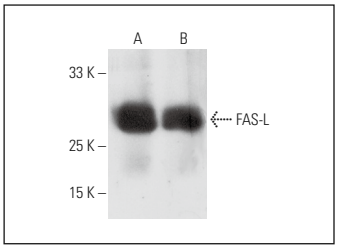
Suitable for use as control antibody for FAS-L siRNA (h): sc-29313, FAS-L siRNA (m): sc-35358, FAS-L shRNA Plasmid (h): sc-29313-SH, FAS-L shRNA Plasmid (m): sc-35358-SH, FAS-L shRNA (h) Lentiviral Particles: sc-29313-V and FAS-L shRNA (m) Lentiviral Particles: sc-35358-V.

Molecular Weight of soluble FAS-L: 26 kDa.

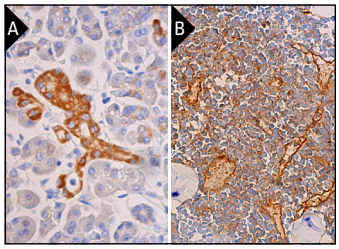
Molecular Weight of FAS-L membrane: 40 kDa.

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

DATA



FAS-L (NOK-1): sc-19681. Western blot analysis of FAS-L expression in K-562 (**A**) and HL-60 (**B**) whole cell lysates immunoprecipitated with FAS-L (NOK-1): sc-19681 and detected with FAS-L (C-178): sc-6237.



FAS-L (NOK-1): sc-19681. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of pancreatic duct cells (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse bone marrow tissue showing membrane and cytoplasmic staining of hematopoietic cells (**B**).

SELECT PRODUCT CITATIONS

1. Xiao, S., et al. 2004. Novel negative regulator of expression in FAS ligand (CD178) cytoplasmic tail: evidence for translational regulation and against FAS ligand retention in secretory lysosomes. J. Immunol. 173: 5095-5102.
2. Zhang, Y., et al. 2021. VEGFR2 activity on myeloid cells mediates immune suppression in the tumor microenvironment. JCI Insight 6: e150735.
3. Zhu, M., et al. 2022. KYA1797K, a novel small molecule destabilizing β-catenin, is superior to ICG-001 in protecting against kidney aging. Kidney Dis. 8: 408-423.
4. Miao, J., et al. 2023. Sirtuin 6 is a key contributor to gender differences in acute kidney injury. Cell Death Discov. 9: 134.

RESEARCH USE

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