

FAS (X-20): sc-1024

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 inter-cellular interactions of FAS with its ligand or effectors, and that FAS may be critically involved in CTL-mediated cytotoxicity.

REFERENCES

- Henkart, P.A. 1985. Mechanism of lymphocyte-mediated cytotoxicity. *Annu. Rev. Immunol.* 3: 31-58.
- Young, J.D.E., et al. 1988. Perforin-dependent and independent pathways of cytotoxicity mediated by lymphocytes. *Immunol. Rev.* 103: 161-202.

CHROMOSOMAL LOCATION

Genetic locus: Fas (mouse) mapping to 19 C1.

SOURCE

FAS (X-20) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-terminus of FAS of mouse origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-1024 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FAS (X-20) is recommended for detection of FAS of mouse 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 solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for FAS siRNA (m): sc-29312, FAS shRNA Plasmid (m): sc-29312-SH and FAS shRNA (m) Lentiviral Particles: sc-29312-V.

Molecular Weight of FAS: 48 kDa.

Positive Controls: mouse thymus extract: sc-2406.

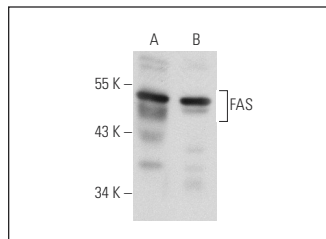
RESEARCH USE

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

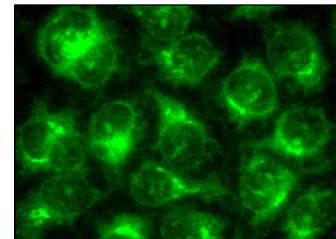
STORAGE

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

DATA



FAS (X-20): sc-1024. Western blot analysis of FAS expression in mouse thymus tissue extract (A) and mouse PBL whole cell lysate (B).



B-Myb (C-20): sc-725. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Lee, J., et al. 1997. The Fas system is a key regulator of germ cell apoptosis in the testis. *Endocrinology* 138: 2081-2088.
- Crawford, H.C., et al. 2002. Matrix metalloproteinase-7 is expressed by pancreatic cancer precursors and regulates acinar-to-ductal metaplasia in exocrine pancreas. *J. Clin. Invest.* 109: 1437-1444.
- Qian, H., et al. 2003. Apoptosis and increased expression of Fas ligand after unocular anterior chamber (AC) inoculation of HSV-1. *Curr. Eye Res.* 26: 195-203.
- Recchia, I., et al. 2004. Reduction of c-Src activity by substituted 5,7-diphenyl-pyrrolo[2,3-d]-pyrimidines induces osteoclast apoptosis *in vivo* and *in vitro*. Involvement of ERK1/2 pathway. *Bone* 34: 65-79.
- Potter, S.M., et al. 2006. A role for Fas-Fas ligand interactions during the late-stage neuropathological processes of experimental cerebral malaria. *J. Neuroimmunol.* 173: 96-107.
- Zak, S., et al. 2008. Lack of thrombospondin-1 increases angiogenesis in a model of chronic inflammatory bowel disease. *Int. J. Colorectal. Dis.* 23: 297-304.
- Bollrath, J., et al. 2009. gp130-mediated Stat3 activation in enterocytes regulates cell survival and cell-cycle progression during colitis-associated tumorigenesis. *Cancer Cell* 15: 91-102.
- Alkhoury, N., et al. 2010. Adipocyte apoptosis, a link between obesity, Insulin resistance, and hepatic steatosis. *J. Biol. Chem.* 285: 3428-3438.
- Park, S.M., et al. 2010. CD95 is cytoprotective for intestinal epithelial cells in colitis. *Inflamm. Bowel Dis.* 16: 1063-1070.
- Marchong, M.N., et al. 2010. Cdh11 acts as a tumor suppressor in a murine retinoblastoma model by facilitating tumor cell death. *PLoS Genet.* 6: e1000923.
- Barranco, I., et al. 2011. Immunohistochemical detection of extrinsic and intrinsic mediators of apoptosis in porcine paraffin-embedded tissues. *Vet. Immunol. Immunopathol.* 139: 210-216.