

FAS-L (Kay-10): sc-19988

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 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.
- 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: Fasl (mouse) mapping to 1 H2.1.

SOURCE

FAS-L (Kay-10) is a mouse monoclonal antibody raised against C57BL/6 mouse FAS-L cDNA-transfected L5178Y mouse T lymphoma.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin. Also available azide-free for blocking of FAS-L action, sc-19988 L, 200 µg/0.1 ml.

FAS-L (Kay-10) is available conjugated to either phycoerythrin (sc-19988 PE) or fluorescein (sc-19988 FITC), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

APPLICATIONS

FAS-L (Kay-10) is recommended for detection of FAS-L 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 flow cytometry (1 µg per 1 x 10⁶ cells).

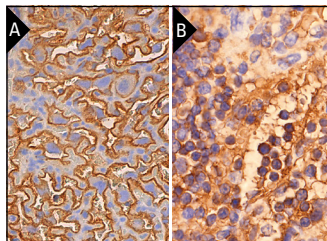
Suitable for use as control antibody for FAS-L siRNA (m): sc-35358, FAS-L shRNA Plasmid (m): sc-35358-SH and FAS-L shRNA (m) Lentiviral Particles: sc-35358-V.

Molecular Weight of soluble FAS-L/FAS-L membrane: 26/40 kDa.

STORAGE

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

DATA



FAS-L (Kay-10): sc-19988. Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse placenta tissue showing membrane staining of trophoblastic cells (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded mouse lymphoma tissue showing membrane localization (B).

SELECT PRODUCT CITATIONS

- Yamanouchi, J., et al. 2003. Cross-priming of diabetogenic T cells dissociated from CTL-induced shedding of β cell autoantigens. *J. Immunol.* 171: 6900-6909.
- Xia, Y., et al. 2013. Differential regulation of c-Jun protein plays an instrumental role in chemoresistance of cancer cells. *J. Biol. Chem.* 288: 19321-19329.
- Pandey, V.K., et al. 2014. G1-4A, a polysaccharide from *Tinospora cordifolia* induces peroxynitrite dependent killer dendritic cell (KDC) activity against tumor cells. *Int. Immunopharmacol.* 23: 480-488.
- Orazizadeh, M., et al. 2015. Protective effect of β -carotene against titanium dioxide nanoparticles induced apoptosis in mouse testicular tissue. *Andrologia* 47: 816-825.
- Hao, Q., et al. 2016. Resveratrol attenuates acute kidney injury by inhibiting death receptor-mediated apoptotic pathways in a cisplatin-induced rat model. *Mol. Med. Rep.* 14: 3683-3689.
- Zhang, L., et al. 2018. Porcine parvovirus infection impairs progesterone production in luteal cells through mitogen-activated protein kinases, p53, and mitochondria-mediated apoptosis. *Biol. Reprod.* 98: 558-569.
- Seo, Y.S., et al. 2020. Oxysterol 25-hydroxycholesterol as a metabolic pathophysiological factors of osteoarthritis induces apoptosis in primary rat chondrocytes. *Korean J. Physiol. Pharmacol.* 24: 249-257.
- Wang, J., et al. 2021. Apoptotic extracellular vesicles ameliorate multiple myeloma by restoring FAS-mediated apoptosis. *ACS Nano* 15: 14360-14372.
- Zeng, H.T., et al. 2022. Modulating oxidative stress in B cells promotes immunotherapy in food allergy. *Oxid. Med. Cell. Longev.* 2022: 3605977.

RESEARCH USE

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