SANTA CRUZ BIOTECHNOLOGY, INC.

FAS (C-20): sc-715

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.

CHROMOSOMAL LOCATION

Genetic locus: FAS (human) mapping to 10q23.31.

SOURCE

FAS (C-20) is available as either rabbit (sc-715) or goat (sc-715-G) polyclonal affinity purified antibody raised against a peptide mapping at the C-terminus of FAS of human origin.

PRODUCT

Each vial contains either 100 µg (sc-715) or 200 µg (sc-715-G) IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-715 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FAS (C-20) is recommended for detection of FAS of human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for FAS siRNA (h): sc-29311, FAS shRNA Plasmid (h): sc-29311-SH and FAS shRNA (h) Lentiviral Particles: sc-29311-V.

Molecular Weight of FAS: 48 kDa.

Positive Controls: A-431 whole cell lysate: sc-2201, Hs68 cell lysate: sc-2230 or MDA-MB-468 cell lysate: sc-2282.

RESEARCH USE

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

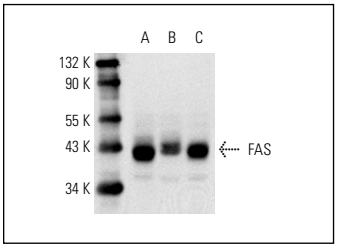
PROTOCOLS

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

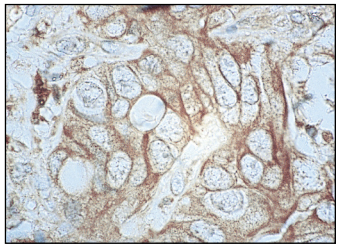
STORAGE

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

DATA



FAS (C-20)-G: sc-715-G. Western blot analysis of FAS expression in A-431 (**A**), MDA-MB-468 (**B**) and Hs68 (**C**) whole cell lysates.



FAS (C-20): sc-715. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human liver tumor. Note distinct membrane staining of hepatocytes.

SELECT PRODUCT CITATIONS

1. Arscott, P.L., et al. 1997. Fas (APO-1, CD95)-mediated apoptosis in thyroid cells is regulated by a labile protein inhibitor. Endocrinology 138: 5019-5027.
2. Rauert, H., et al. 2011. TNFR1 and TNFR2 regulate the extrinsic apoptotic pathway in myeloma cells by multiple mechanisms. Cell Death Dis. 2: e194.
3. Koshkina, N.V., et al. 2011. Effect of the histone deacetylase inhibitor SNDX-275 on Fas signaling in osteosarcoma cells and the feasibility of its topical application for the treatment of osteosarcoma lung metastases. Cancer 117: 3457-3467.
4. Yerbes, R., et al. 2011. Cellular FLIP(L) plays a survival role and regulates morphogenesis in breast epithelial cells. Biochim. Biophys. Acta 1813: 168-178.
5. Estornes, Y., et al. 2012. dsRNA induces apoptosis through an atypical death complex associating TLR3 to caspase-8. Cell Death Differ. 19: 1482-1494.
6. Garg, A.D., et al. 2012. A novel pathway combining calreticulin exposure and ATP secretion in immunogenic cancer cell death. EMBO J. 31: 1062-1079.
7. Liu, F., et al. 2012. NF-κB directly regulates Fas transcription to modulate Fas-mediated apoptosis and tumor suppression. J. Biol. Chem. 287: 25530-25540.
8. Gupta, K., et al. 2012. Green tea polyphenols induce p53-dependent and p53-independent apoptosis in prostate cancer cells through two distinct mechanisms. PLoS ONE 7: e52572.
9. González, R., et al. 2012. Targeting hepatoma using nitric oxide donor strategies. Antioxid. Redox Signal. 18: 491-506.
10. Wu, Y.H., et al. 2012. Removal of syndecan-1 promotes TRAIL-induced apoptosis in myeloma cells. J. Immunol. 188: 2914-2921.