

FAN (C-19): sc-6335

BACKGROUND

Tumor necrosis factor (TNF) is a pleiotropic cytokine whose function is mediated through two distinct cell surface receptors. These receptors, designated TNF-R1 and TNF-R2, are expressed on most cell types. The majority of TNF functions are primarily mediated through TNF-R1. FAN (for factor associated with neutral sphingomyelinase (N-SMase) activation) is an intermediate protein that interacts with TNF-R1 to initiate TNF signaling events. FAN binds to TNF-R1 at the cytoplasmic NSD (N-SMase activating domain), which results in the initiation of the N-SMase pathway. N-SMase has been shown to be involved in TNF-induced Raf-1 activation. FAN contains four carboxy-terminal WD-repeat domains which appear to be involved in protein-protein interaction. The FAN WD-repeats may mediate the interaction between FAN and TNF-R1.

REFERENCES

- Goeddel, D.V., Aggarwal, B.B., Gray, P.W., Leung, D.W., Nedwin, G.E., Palladino, M.A., Patton, J.S., Pennica, D., Shepard, H.M. and Sugarman, B.J. 1986. Tumor necrosis factors: gene structure and biological activities. Cold Spring Harbor Symp. Quant. Biol. 51: 597-609.
- Espevik, T., Brockhaus, M., Loetscher, H., Nonstad, U. and Shalaby, R. 1990. Characterization of binding and biological effects of monoclonal antibodies against a human tumor necrosis factor receptor. J. Exp. Med. 171: 415-426.
- Smith, C.A., Farrah, T. and Goodwin, R.G. 1994. The TNF receptor superfamily of cellular and viral proteins: activation, costimulation, and death. Cell 76: 959-962.
- Hsu, H., Xiong, J. and Goeddel, D.V. 1995. The TNF receptor 1-associated protein TRADD signals cell death and NF κ B activation. Cell 81: 495-504.
- Belka, C., Wiegmann, K., Adam, D., Holland, R., Neuloh, M., Herrmann, F., Kronke, M. and Brach, M.A. 1995. Tumor necrosis factor (TNF)- α activates c-Raf-1 kinase via the p55 TNF receptor engaging neutral sphingomyelinase. EMBO J. 14: 1156-1165.
- Adam-Klages, S., Adam, D., Weigmann, K., Struve, S., Kolanus, W., Schneider-Mergener J. and Kronke, M. 1996. FAN, a novel WD-repeat protein, couples the p55 TNF-receptor to neutral sphingomyelinase. Cell 86: 937-947.

CHROMOSOMAL LOCATION

Genetic locus: NSMAF (human) mapping to 8q12.1; Nsmaf (mouse) mapping to 4 A1.

SOURCE

FAN (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of FAN of human origin.

STORAGE

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

PRODUCT

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

Blocking peptide available for competition studies, sc-6335 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FAN (C-19) is recommended for detection of FAN of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

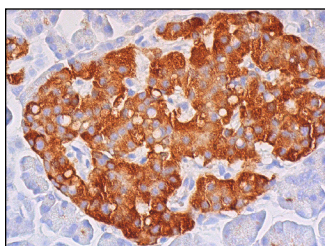
FAN (C-19) is also recommended for detection of FAN in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for FAN siRNA (h): sc-63326, FAN siRNA (m): sc-63327, FAN shRNA Plasmid (h): sc-63326-SH, FAN shRNA Plasmid (m): sc-63327-SH, FAN shRNA (h) Lentiviral Particles: sc-63326-V and FAN shRNA (m) Lentiviral Particles: sc-63327-V.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



FAN (C-19): sc-6335. Immunoperoxidase staining of formalin fixed, paraffin-embedded human pancreas tissue showing cytoplasmic staining of Islets of Langerhans.

RESEARCH USE

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