

Fap-1 (L-20): sc-1729

BACKGROUND

In contrast to the growth factors which promote cell proliferation, FAS ligand (FAS-L) and the tumor necrosis factors (TNFs) rapidly induce apoptosis. Cellular response to Fas-L and TNF is mediated by structurally-related receptors containing a conserved "death domain" belonging to the TNF receptor superfamily. Putative downstream receptors of FAS include TRADD, FADD and RIP. A novel protein tyrosine phosphatase, Fap-1 (for FAS-associated phosphatase) (originally designated PTP-BAS), has been shown to associate with the carboxy-terminus fifteen amino acids of FAS. Three isoforms of the protein result from alternative RNA splicings, the longest of which encodes a protein 2485 amino acids in length. Although lacking a transmembrane region, Fap-1 does contain a membrane-binding domain, similar to that found in cytoskeleton-associated proteins such as ezrin. Fap-1 does not seem to associate with CD40 or death domain proteins such as TNF-RI and TNF-RII.

REFERENCES

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- Sato, T., et al. 1995. Fap-1: a protein tyrosine phosphatase that associates with FAS. *Science* 268: 411-414.
- Baker, S.J., et al. 1996. Transducers of life and death: TNF receptor superfamily and associated proteins. *Oncogene* 12: 1-9.

CHROMOSOMAL LOCATION

Genetic locus: PTPN13 (human) mapping to 4q21.3; Ptpn13 (mouse) mapping to 5 E5.

SOURCE

Fap-1 (L-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Fap-1 of human origin.

RESEARCH USE

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

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-1729 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Fap-1 (L-20) is recommended for detection of Fap-1 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Fap-1 (L-20) is also recommended for detection of Fap-1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Fap-1 siRNA (h): sc-43560, Fap-1 siRNA (m): sc-145067, Fap-1 shRNA Plasmid (h): sc-43560-SH, Fap-1 shRNA Plasmid (m): sc-145067-SH, Fap-1 shRNA (h) Lentiviral Particles: sc-43560-V and Fap-1 shRNA (m) Lentiviral Particles: sc-145067-V.

Molecular Weight of Fap-1: 250 kDa.

Positive Controls: SW480 cell lysate: sc-2219.

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.

SELECT PRODUCT CITATIONS

- Savaskan, E., et al. 2005. Immunohistochemical localization of FAS-associated phosphatase-1 (Fap-1) in Alzheimer disease hippocampus. *Appl. Immunohistochem. Mol. Morphol.* 13: 190-193.

STORAGE

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

PROTOCOLS

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