

## Fap-1 (C-20): sc-1138

### 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.

### CHROMOSOMAL LOCATION

Genetic locus: PTPN13 (human) mapping to 4q21.3.

### SOURCE

Fap-1 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Fap-1 of human 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-1138 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

### STORAGE

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

### RESEARCH USE

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

### APPLICATIONS

Fap-1 (C-20) is recommended for detection of Fap-1 of 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).

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

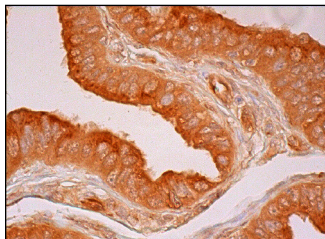
Suitable for use as control antibody for Fap-1 siRNA (h): sc-43560, Fap-1 shRNA Plasmid (h): sc-43560-SH and Fap-1 shRNA (h) Lentiviral Particles: sc-43560-V.

Molecular Weight of Fap-1: 250 kDa.

### 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



Fap-1 (C-20): sc-1138. Immunoperoxidase staining of formalin fixed, paraffin-embedded human fallopian tube tissue showing cytoplasmic staining of glandular cells.

### SELECT PRODUCT CITATIONS

- Lee, S.H., et al. 2001. Expression of Fas and Fas-related molecules in human hepatocellular carcinoma. *Hum. Pathol.* 32: 250-256.
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- Silva, M.A., et al. 2004. Characterization and distribution of colonic dendritic cells in Crohn's disease. *Inflamm. Bowel Dis.* 10: 504-512.
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- Ghiran, I., et al. 2008. Ligation of erythrocyte CR1 induces its clustering in complex with scaffolding protein Fap-1. *Blood* 112: 3465-3473.
- Hoover, A.C., et al. 2009. Impaired PTPN13 phosphatase activity in spontaneous or HPV-induced squamous cell carcinomas potentiates oncogene signaling through the MAP kinase pathway. *Oncogene* 28: 3960-3970.