

# FGF-BP (M-19): sc-68174



The Power to Question

## BACKGROUND

Fibroblast growth factors (FGFs) represent a family of over 20 distinct proteins that are ubiquitously expressed in mammalian systems. FGFs are influential in development, adult tissue homeostasis, angiogenesis and cancer progression. Fibroblast growth factor binding protein, known as FGF-BP, is a secreted protein that binds FGF-1 and FGF-2 and is involved in mobilization and activation of FGFs from the extracellular matrix (ECM). Normal adult human tissues have low levels of FGF-BP expression, whereas its expression is significantly elevated in various tumors, including head, neck, skin, cervical and lung squamous cell carcinomas. FGF-BP expression is upregulated during early phases of tumorigenesis, indicating that the role of FGF-BP in angiogenesis is a critical early step in the development and progression of tumors. Decrease in the growth and angiogenesis of xenograft tumors in mice parallels a reduction in FGF-BP levels, suggesting that tumors can utilize FGF-BP as an angiogenic switch molecule. C/EBP and AP-1 are the main promoter elements required for activation of FGF-BP in response to serum and EGF, respectively.

## REFERENCES

1. Czubyko, F., et al. 1997. A secreted FGF-binding protein can serve as the angiogenic switch in human cancer. *Nat. Med.* 3: 1137-1140.
2. Mongiat, M., et al. 2001. Fibroblast growth factor-binding protein is a novel partner for Perlecan protein core. *J. Biol. Chem.* 276: 10263-10271.
3. Tassi, E., et al. 2001. Enhancement of fibroblast growth factor (FGF) activity by an FGF-binding protein. *J. Biol. Chem.* 276: 40247-40253.
4. Harris, V.K., et al. 2001. Serum induction of the fibroblast growth factor-binding protein (FGF-BP) is mediated through ERK and p38 MAP kinase activation and C/EBP-regulated transcription. *Oncogene* 20: 1730-1738.
5. Aigner, A., et al. 2001. An FGF-binding protein (FGF-BP) exerts its biological function by parallel paracrine stimulation of tumor cell and endothelial cell proliferation through FGF-2 release. *Int. J. Cancer* 92: 510-517.
6. Stoppler, H., et al. 2001. The human papillomavirus (HPV) 16 E6 oncoprotein leads to an increase in gene expression of the angiogenic switch molecule FGF-BP in non-immortalized human keratinocytes. *Oncogene* 20: 7430-7446.

## CHROMOSOMAL LOCATION

Genetic locus: *Fgfbp1* (mouse) mapping to 5 B3.

## SOURCE

FGF-BP (M-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of FGF-BP of mouse 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-68174 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## RESEARCH USE

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

## APPLICATIONS

FGF-BP (M-19) is recommended for detection of FGF-BP of mouse and rat 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).

Suitable for use as control antibody for FGF-BP siRNA (m2): sc-62315, FGF-BP shRNA Plasmid (m2): sc-62315-SH and FGF-BP shRNA (m2) Lentiviral Particles: sc-62315-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.

## 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](http://www.scbt.com) or our catalog for detailed protocols and support products.