

FGF-10 (C-17): sc-7375

BACKGROUND

Fibroblast growth factor-1 (FGF-1), also designated acidic FGF, and fibroblast growth factor-2 (FGF-2), also designated basic FGF, are members of a family of growth factors that stimulate proliferation of cells of mesenchymal, epithelial and neuroectodermal origin. Additional members of the FGF family include the oncogenes FGF-3 (Int2) and FGF-4 (hst/Kaposi), FGF-5, FGF-6, FGF-7 (KGF), FGF-8 (AIGF), FGF-9 (GAF) and FGF-10. Members of the FGF family share 30-55% amino acid sequence identity, similar gene structure, and are capable of transforming cultured cells when overexpressed in transfected cells. Cellular receptors for FGFs are members of a second multigene family including four tyrosine kinases, designated Flg (FGFR-1), Bek (FGFR-L), TKF and FGFR-3.

REFERENCES

1. Moore, R., et al. 1986. Sequence, topography and protein coding potential of mouse int-2: a putative oncogene activated by mouse mammary tumor virus. *EMBO J.* 5: 919-924.
2. Delli Bovi, P., et al. 1987. An oncogene isolated by transfection of Kaposi's sarcoma DNA encodes a growth factor that is a member of the FGF family. *Cell* 50: 729-737.
3. Zhan, X., et al. 1988. The human FGF-5 oncogene encodes a novel protein related to fibroblast growth factors. *Mol. Cell. Biol.* 8: 3487-3495.

CHROMOSOMAL LOCATION

Genetic locus: FGF10 (human) mapping to 5p12, FGF3 (human) mapping to 11q13; Fgf10 (mouse) mapping to 13 D2.3, Fgf3 (mouse) mapping to 7 F5.

SOURCE

FGF-10 (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of FGF-10 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-7375 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FGF-10 (C-17) is recommended for detection of precursor and mature FGF-10 and FGF-3 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], 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).

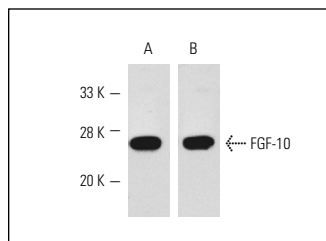
FGF-10 (C-17) is also recommended for detection of precursor and mature FGF-10 and FGF-3 in additional species, including equine, canine, bovine and porcine.

Molecular Weight of FGF-10: 19 kDa.

STORAGE

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

DATA



Western blot analysis of human recombinant FGF-10 (A,B). Antibodies tested include FGF-10 (C-17): sc-7375 (A) and FGF-10 (H-121): sc-7917 (B).

SELECT PRODUCT CITATIONS

1. Harada, H., et al. 2002. FGF-10 maintains stem cell compartment in developing mouse incisors. *Development* 129: 1533-1541.
2. Sakaue, H., et al. 2002. Requirement of fibroblast growth factor 10 in development of white adipose tissue. *Genes Dev.* 16: 908-912.
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4. Mandler, M., et al. 2004. FGF signaling is required for initiation of feather placode development. *Development* 131: 3333-3343.
5. Steinberg, Z., et al. 2005. FGFR2b signaling regulates *ex vivo* submandibular gland epithelial cell proliferation and branching morphogenesis. *Development* 132: 1223-1234.
6. Huang, L., et al. 2005. The role of FGF-10 signaling in branching morphogenesis and gene expression of the rat prostate gland: lobe-specific suppression by neonatal estrogens. *Dev. Biol.* 278: 396-414.
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8. Zhang, K., et al. 2010. Fibroblast growth factor 10 enhances bovine oocyte maturation and developmental competence *in vitro*. *Reproduction* 140: 815-826.
9. Che, J., et al. 2011. Endothelial FGF receptor signaling accelerates atherosclerosis. *Am. J. Physiol. Heart Circ. Physiol.* 300: H154-H161.

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.