SANTA CRUZ BIOTECHNOLOGY, INC.

FGF-1 (C-19): sc-1884

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Fibroblast growth factor-1 (FGF-1), also designated acidic FGF, and fibroblast growth factor-2 (FGF-2), also referred to as 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.

CHROMOSOMAL LOCATION

Genetic locus: FGF1 (human) mapping to 5q31.3, FGF2 (human) mapping to 4q26; Fgf1 (mouse) mapping to 18 B3, Fgf2 (mouse) mapping to 3 B.

SOURCE

FGF-1 (C-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of FGF-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-1884 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as agarose (sc-1884 AC) conjugate for immunoprecipitation, 500 µg/0.25 ml agarose in 1 ml.

APPLICATIONS

FGF-1 (C-19) is recommended for detection of precursor and mature FGF-1 and FGF-2 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), 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).

FGF-1 (C-19) is also recommended for detection of precursor and mature FGF-1 and FGF-2 in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of FGF-1: 16 kDa.

STORAGE

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

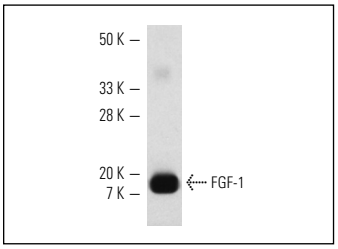
PROTOCOLS

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

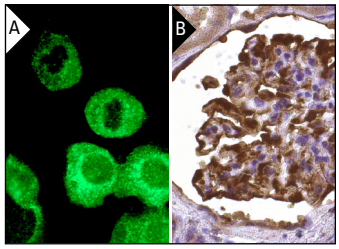
RESEARCH USE

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

DATA



FGF-1 (C-19): sc-1884. Western blot analysis of human recombinant FGF-1.



FGF-1 (C-19): sc-1884. Immunofluorescence staining of methanol-fixed ECV304 cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing strong cytoplasmic staining in a subset of glomerular cells and weak cytoplasmic staining of cells in tubules (**B**).

SELECT PRODUCT CITATIONS

1. Chiu, I.M., et al. 2000. Tumorigenesis in transgenic mice in which the SV40 T antigen is driven by the brain-specific FGF1 promoter. Oncogene 19: 6229-6239.
2. Liu, F.L., et al. 2004. Acute intermittent nicotine treatment produces a reduction in the total number of FGF-2 immunoreactive astroglial cells in the substantia nigra of the rat: a stereological analysis. Neurosci. Lett. 355: 181-184.
3. Pennisi, D.J., et al. 2005. Normal patterning of the coronary capillary plexus is dependent on the correct transmural gradient of FGF expression in the myocardium. Dev. Biol. 279: 378-390.
4. Khnykin, D., et al. 2006. The expression of fibroblast growth factors and their receptors in Hodgkin's lymphoma. J. Pathol. 208: 431-438.
5. Giatromanolaki, A., et al. 2007. Angiogenic factor expression in hepatic cirrhosis. Mediators Inflamm. 2007: 67187.
6. Shen, J., et al. 2012. Expression of a novel dual-functional protein—the antimicrobial peptide LL-37 fused with human acidic fibroblast growth factor in *Escherichia coli*. Protein Expr. Purif. 81: 119-125.
7. Ishigami, T., et al. 2013. The involvement of fibroblast growth factor receptor signaling pathways in dermatofibroma and dermatofibrosarcoma protuberans. J. Med. Invest. 60: 106-113.
8. Sletten, T., et al. 2014. Nucleolin regulates phosphorylation and nuclear export of fibroblast growth factor 1 (FGF1). PLoS ONE 9: e90687.