SANTA CRUZ BIOTECHNOLOGY, INC.

FGF-1 (B-3): sc-55520

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 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–FGF-23. Members of the FGF family share 30-55% amino acid sequence identity and 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.

SOURCE

FGF-1 (B-3) is a mouse monoclonal antibody raised against amino acids 16-140 of FGF-1 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2b} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FGF-1 (B-3) is available conjugated to agarose (sc-55520 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-55520 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-55520 PE), fluorescein (sc-55520 FITC), Alexa Fluor® 488 (sc-55520 AF488), Alexa Fluor® 546 (sc-55520 AF546), Alexa Fluor® 594 (sc-55520 AF594) or Alexa Fluor® 647 (sc-55520 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-55520 AF680) or Alexa Fluor® 790 (sc-55520 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

FGF-1 (B-3) is recommended for detection of FGF-1 of human origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for FGF-1 siRNA (h): sc-39444, FGF-1 shRNA Plasmid (h): sc-39444-SH and FGF-1 shRNA (h) Lentiviral Particles: sc-39444-V.

Molecular Weight of FGF-1: 16 kDa.

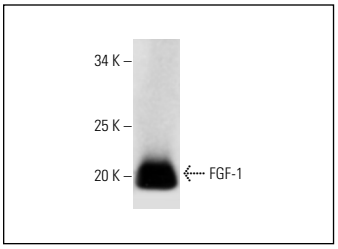
STORAGE

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

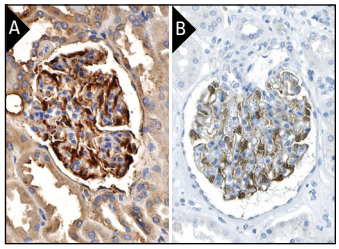
RESEARCH USE

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

DATA



FGF-1 (B-3): sc-55520. Western blot analysis of human recombinant FGF-1.



FGF-1 (B-3): sc-55520. Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic and membrane staining of cells in glomeruli. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human kidney tissue showing cytoplasmic and membrane staining of cells in glomeruli (**B**).

SELECT PRODUCT CITATIONS

1. Kuyama, K., et al. 2009. Rare lipomatous tumors with osseous and/or chondroid differentiation in the oral cavity report of two cases and review of the literature. Int. J. Dent. 2009: 143460.
2. Maria de Souza, C., et al. 2012. Thalidomide attenuates mammary cancer associated-inflammation, angiogenesis and tumor growth in mice. Biomed. Pharmacother. 66: 491-498.
3. Sak, M.E., et al. 2013. Fibroblast growth factor-1 expression in the endometrium of patients with repeated implantation failure after *in vitro* fertilization. Eur. Rev. Med. Pharmacol. Sci. 17: 398-402.
4. Lee, J.C., et al. 2016. Characterization of FN1-FGFR1 and novel FN1-FGF1 fusion genes in a large series of phosphaturic mesenchymal tumors. Mod. Pathol. 29: 1335-1346.
5. Wang, S., et al. 2020. Adipocyte Piezo1 mediates obesogenic adipogenesis through the FGF-1/FGFR-1 signaling pathway in mice. Nat. Commun. 11: 2303.
6. Porebska, N., et al. 2021. Dissecting biological activities of fibroblast growth factor receptors by the coiled-coil-mediated oligomerization of FGF-1. Int. J. Biol. Macromol. 180: 470-483.
7. Lampart, A., et al. 2022. Nuclear localization sequence of FGF-1 is not required for its intracellular anti-apoptotic activity in differentiated cells. Cells 11: 522.
8. Oliveira Modena, D.A., et al. 2022. Effect of extracorporeal shock waves on induced neocollagenesis of integumentary tissue. J. Clin. Aesthet. Dermatol. 15: 52-57.

PROTOCOLS

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