

FGF-16 (G-2): sc-390547

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.

REFERENCES

- 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.
- 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.
- 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: FGF16 (human) mapping to Xq21.1; Fgf16 (mouse) mapping to X D.

SOURCE

FGF-16 (G-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 41-58 of FGF-16 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

FGF-16 (G-2) is available conjugated to agarose (sc-390547 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390547 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390547 PE), fluorescein (sc-390547 FITC), Alexa Fluor® 488 (sc-390547 AF488), Alexa Fluor® 546 (sc-390547 AF546), Alexa Fluor® 594 (sc-390547 AF594) or Alexa Fluor® 647 (sc-390547 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390547 AF680) or Alexa Fluor® 790 (sc-390547 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-390547 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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RESEARCH USE

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

APPLICATIONS

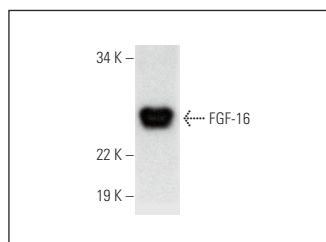
FGF-16 (G-2) is recommended for detection of FGF-16 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 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).

FGF-16 (G-2) is also recommended for detection of FGF-16 in additional species, including canine, bovine, porcine and avian.

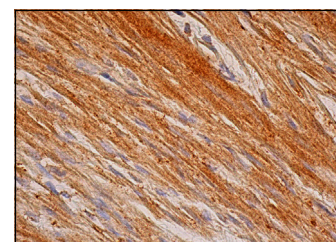
Suitable for use as control antibody for FGF-16 siRNA (h): sc-39474, FGF-16 siRNA (m): sc-39475, FGF-16 shRNA Plasmid (h): sc-39474-SH, FGF-16 shRNA Plasmid (m): sc-39475-SH, FGF-16 shRNA (h) Lentiviral Particles: sc-39474-V and FGF-16 shRNA (m) Lentiviral Particles: sc-39475-V.

Molecular Weight of FGF-16: 26 kDa.

DATA



FGF-16 (G-2): sc-390547. Western blot analysis of human recombinant FGF-16.



FGF-16 (G-2): sc-390547. Immunoperoxidase staining of formalin fixed, paraffin-embedded human smooth muscle tissue showing cytoplasmic staining of smooth muscle cells.

SELECT PRODUCT CITATIONS

- Jiang, F.Q., et al. 2022. Mettl3-mediated m⁶A modification of Fgf16 restricts cardiomyocyte proliferation during heart regeneration. *Elife* 11: e77014.
- Chen, G., et al. 2023. Fibroblast growth factor 18 alleviates stress-induced pathological cardiac hypertrophy in male mice. *Nat. Commun.* 14: 1235.

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 for detailed protocols and support products.