

FGF-9 (A-4): sc-373716



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 (Int-2) 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, 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.

SOURCE

FGF-9 (A-4) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 181–208 at the C-terminus of FGF-9 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-373716 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

FGF-9 (A-4) is recommended for detection of precursor and mature FGF-9, FGF-16 and FGF-20 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30–1:3000).

FGF-9 (A-4) is also recommended for detection of precursor and mature FGF-9, FGF-16 and FGF-20 in additional species, including equine, canine, bovine and porcine.

Molecular Weight of FGF-9: 30 kDa.

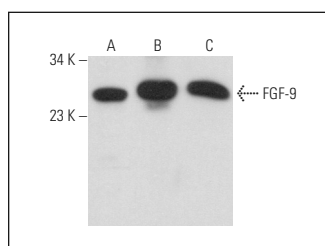
Molecular Weight of FGF-16: 26 kDa.

Positive Controls: human brain extract: sc-364375, mouse brain extract: sc-2253 or mouse kidney extract: sc-2255.

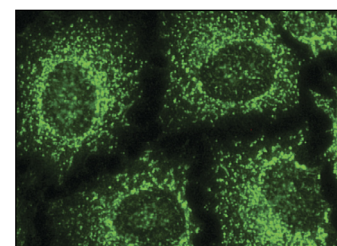
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000–1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50–1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



FGF-9 (A-4): sc-373716. Western blot analysis of FGF-9 expression in mouse brain (A), mouse kidney (B) and human brain (C) tissue extracts.



FGF-9 (A-4): sc-373716. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Lee, I.S., et al. 2017. Neurogenin-2-transduced human neural progenitor cells attenuate neonatal hypoxic-ischemic brain injury. *Transl. Res.* 183: 121-136.e9.
- Bersini, S., et al. 2018. Engineering an environment for the study of fibrosis: a 3D human muscle model with endothelium specificity and endomyosium. *Cell Rep.* 25: 3858-3868.e4.
- Wang, Y., et al. 2020. miR-140-5p targeted FGF9 and inhibited the cell growth of laryngeal squamous cell carcinoma. *Biochem. Cell Biol.* 98: 83-89.
- 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.

RESEARCH USE

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

PROTOCOLS

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