

FGF-12 (ZA-12): sc-81947

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.
- Rifkin, D.B., et al. 1989. Recent developments in the cell biology of fibroblast growth factor. *J. Cell Biol.* 109: 1-6.
- Marics, I., et al. 1989. Characterization of the HST-related FGF6 gene, a new member of the fibroblast growth factor gene family. *Oncogene* 4: 335-340.
- Dionne, C.A., et al. 1990. Cloning and expression of two distinct high-affinity receptors cross-reacting with acidic and basic fibroblast growth factors. *EMBO J.* 9: 2685-2692.
- Tanaka, A., et al. 1992. Cloning and characterization of an androgen-induced growth factor essential for the androgen-dependent growth of mouse mammary carcinoma cells. *Proc. Natl. Acad. Sci. USA* 89: 8928-8932.
- Miyamoto, M., et al. 1993. Molecular cloning of a novel cytokine cDNA encoding the ninth member of the fibroblast growth factor family, which has a unique secretion property. *Mol. Cell. Biol.* 13: 4251-4259.

CHROMOSOMAL LOCATION

Genetic locus: FGF12 (human) mapping to 3q28; Fgf12 (mouse) mapping to 16 B2.

SOURCE

FGF-12 (ZA-12) is a mouse monoclonal antibody raised against recombinant FGF-12 of human origin.

PRODUCT

Each vial contains 100 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

FGF-12 (ZA-12) is recommended for detection of FGF-12 of mouse, rat and human origin by 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).

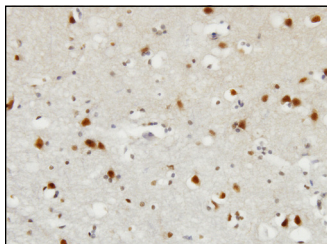
Suitable for use as control antibody for FGF-12 siRNA (h): sc-39466, FGF-12 siRNA (m): sc-39467, FGF-12 shRNA Plasmid (h): sc-39466-SH, FGF-12 shRNA Plasmid (m): sc-39467-SH, FGF-12 shRNA (h) Lentiviral Particles: sc-39466-V and FGF-12 shRNA (m) Lentiviral Particles: sc-39467-V.

Molecular Weight of FGF-12: 27 kDa.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) 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. 2) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



FGF-12 (ZA-12): sc-81947. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human cerebral cortex tissue showing nuclear localization.

SELECT PRODUCT CITATIONS

- Sochacka, M., et al. 2022. FGF12 is a novel component of the nucleolar NOLC1/TCOF1 ribosome biogenesis complex. *Cell Commun. Signal.* 20: 182.
- Gędaj, A., et al. 2024. The intracellular interplay between galectin-1 and FGF12 in the assembly of ribosome biogenesis complex. *Cell Commun. Signal.* 22: 175.
- Wang, N., et al. 2024. FGF12 positively regulates keratinocyte proliferation by stabilizing MDM2 and inhibiting p53 activity in psoriasis. *Adv. Sci.* E-published.

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.