SANTA CRUZ BIOTECHNOLOGY, INC.

FGF-21 (Y-16): sc-81946

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.

REFERENCES

1. 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.
2. 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.
3. 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.
4. Rifkin, D.B., et al. 1989. Recent developments in the cell biology of fibroblast growth factor. J. Cell Biol. 109: 1-6.
5. Marics, I., et al. 1989. Characterization of the HST-related FGF-6 gene, a new member of the fibroblast growth factor gene family. Oncogene 4: 335-340.
6. 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.
7. 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.

CHROMOSOMAL LOCATION

Genetic locus: FGF21 (human) mapping to 19q13.33.

SOURCE

FGF-21 (Y-16) is a mouse monoclonal antibody raised against recombinant FGF-21 of human origin.

PRODUCT

Each vial contains 100 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

APPLICATIONS

FGF-21 (Y-16) is recommended for detection of FGF-21 of 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)] and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for FGF-21 siRNA (h): sc-39484, FGF-21 shRNA Plasmid (h): sc-39484-SH and FGF-21 shRNA (h) Lentiviral Particles: sc-39484-V.

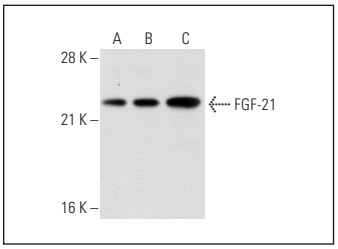
Molecular Weight of FGF-21: 22 kDa.

Positive Controls: FGF-21 (h): 293T lysate: sc-113648 or HeLa whole cell lysate: sc-2200.

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 A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



FGF-21 (Y-16): sc-81946. Western blot analysis of FGF-21 expression in non-transfected 293T: sc-117752 (**A**), human FGF-21 transfected 293T: sc-113648 (**B**) and HeLa (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Jeon, J.Y., et al. 2016. Association between insulin resistance and impairment of FGF21 signal transduction in skeletal muscles. Endocrine 53: 97-106.
2. Jung, T.W., et al. 2019. Protectin DX ameliorates palmitate-induced hepatic insulin resistance through AMPK/SIRT1-mediated modulation of fetuin-A and SeP expression. Clin. Exp. Pharmacol. Physiol. 46: 898-909.
3. Bao, Y., et al. 2021. FANCD2 knockdown with shRNA interference enhances the ionizing radiation sensitivity of nasopharyngeal carcinoma CNE-2 cells. Neoplasma 68: 40-52.

RESEARCH USE

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