SANTA CRUZ BIOTECHNOLOGY, INC.

# FGF-16 (C-2): sc-376214

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.


## CHROMOSOMAL LOCATION

Genetic locus: FGF16 (human) mapping to Xq21.1, FGF9 (human) mapping to 13q12.11; Fgf16 (mouse) mapping to X D, Fgf9 (mouse) mapping to 14 C3.

## SOURCE

FGF-16 (C-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 19-53 near the N-terminus of FGF-16 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.

Blocking peptide available for competition studies, sc-376214 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## STORAGE

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

## APPLICATIONS

FGF-16 (C-2) is recommended for detection of precursor and mature FGF-9 and 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

FGF-16 (C-2) is also recommended for detection of precursor and mature FGF-9 and FGF-16 in additional species, including equine, bovine and porcine.

Molecular Weight of FGF-16: 26 kDa.

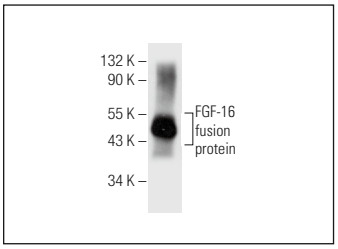
Molecular Weight of FGF-9: 30 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227.

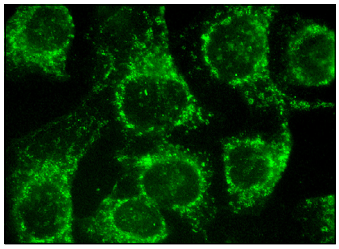
## RECOMMENDED SUPPORT REAGENTS

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). 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-16 (C-2): sc-376214. Western blot analysis of human recombinant FGF-16 fusion protein.



FGF-16 (C-2): sc-376214. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

## SELECT PRODUCT CITATIONS


1. Yu, W., et al. 2016. GATA4 regulates FGF-16 to promote heart repair after injury. Development 143: 936-949.
2. Meng, Z., et al. 2023. miR-372-3p is a potential diagnostic factor for diabetic nephropathy and modulates high glucose-induced glomerular endothelial cell dysfunction via targeting fibroblast growth factor-16. Arch. Med. Sci. 19: 703-716.


## RESEARCH USE

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