SANTA CRUZ BIOTECHNOLOGY, INC.

FGF-4 (C-18): sc-1361

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 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 (Int2) and FGF-4 (hst/Kaposi), FGF-5, FGF-6, FGF-7 (KGF), FGF-8 (AIGF), FGF-9 (GAF) and FGF-10. 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.

CHROMOSOMAL LOCATION

Genetic locus: FGF4 (human) mapping to 11q13.3; Fgf4 (mouse) mapping to 7 F5.

SOURCE

FGF-4 (C-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of FGF-4 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-1361 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

FGF-4 (C-18) is recommended for detection of precursor and mature FGF-4 of mouse, rat and 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)], 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-4 (C-18) is also recommended for detection of precursor and mature FGF-4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for FGF-4 siRNA (h): sc-39450, FGF-4 siRNA (m): sc-39451, FGF-4 shRNA Plasmid (h): sc-39450-SH, FGF-4 shRNA Plasmid (m): sc-39451-SH, FGF-4 shRNA (h) Lentiviral Particles: sc-39450-V and FGF-4 shRNA (m) Lentiviral Particles: sc-39451-V.

Molecular Weight of FGF-4: 17 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

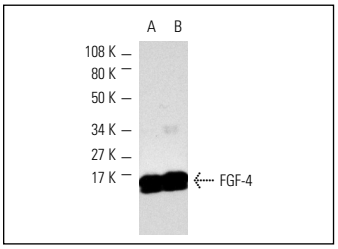
STORAGE

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

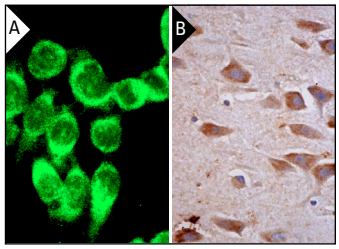
RESEARCH USE

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

DATA



FGF-4 (C-18): sc-1361. Western blot analysis of human recombinant FGF-4 tested at 80 ng (**A**) and 160 ng (**B**).



FGF-4 (C-18): sc-1361. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing cytoplasmic staining of neuronal cells and glial cells (**B**).

SELECT PRODUCT CITATIONS

1. Leunda-Casi, A., et al. 2001. Control of trophectoderm differentiation by inner cell mass-derived fibroblast growth factor-4 in mouse blastocysts and corrective effect of FGF-4 on high glucose-induced trophoblast disruption. Mol. Reprod. Dev. 60: 38-46.
2. Tsai, C.N., et al. 2002. The Epstein-Barr virus oncogene product, latent membrane protein 1, induces the downregulation of E-cadherin gene expression via activation of DNA methyltransferases. Proc. Natl. Acad. Sci. USA 99: 10084-10089.
3. Chen, G., et al. 2003. Protein profiles associated with survival in lung adenocarcinoma. Proc. Natl. Acad. Sci. USA 100: 13537-13542.
4. Wang, P., et al. 2003. The POU homeodomain protein OCT3 as a potential transcriptional activator for fibroblast growth factor-4 (FGF-4) in human breast cancer cells. Biochem. J. 375: 199-205.
5. Sugi, Y., et al. 2003. Fibroblast growth factor (FGF)-4 can induce proliferation of cardiac cushion mesenchymal cells during early valve leaflet formation. Dev. Biol. 258: 252-263.
6. Nadiri, A., et al. 2004. Immunolocalization of BMP-2/-4, FGF-4, and WNT10b in the developing mouse first lower molar. J. Histochem. Cytochem. 52: 103-112.
7. Liu, C.J., et al. 2006. Array-comparative genomic hybridization to detect genomewide changes in microdissected primary and metastatic oral squamous cell carcinomas. Mol. Carcinog. 45: 721-731.