

FGF-15 (I-18): sc-27175

BACKGROUND

Acidic and basic fibroblast growth factors (FGFs) are members of a family of multifunctional polypeptide growth factors that stimulate proliferation of cells of mesenchymal, epithelial and neuroectodermal origin. Like other growth factors, FGFs act by binding and activating specific cell surface receptors. These receptors usually contain an extracellular ligand-binding region containing three immunoglobulin-like domains, a transmembrane domain and a cytoplasmic tyrosine kinase domain. Fibroblast growth factor-15 (FGF-15), a secreted protein expressed mainly in the developing brain, is important for cell division and patterning regulation in specific embryonic brain regions.

REFERENCES

1. Rifkin, D.B., et al. 1989. Recent developments in the cell biology of fibroblast growth factor. *J. Cell Biol.* 109: 1-6.
2. 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.
3. Mansukhani, A., et al. 1992. Characterization of the murine BEK fibroblast growth factor (FGF) receptor: activation by three members of the FGF family and requirement for heparin. *Proc. Natl. Acad. Sci. USA* 89: 3305-3309.
4. Gimeno, L., et al. 2002. Analysis of FGF-15 expression pattern in the mouse neural tube. *Brain Res. Bull.* 57: 297-299.
5. Ishibashi, M., et al. 2002. A Sonic hedgehog-dependent signaling relay regulates growth of diencephalic and mesencephalic primordia in the early mouse embryo. *Development* 129: 4807-4819.
6. Gimeno, L., et al. 2003. Study of FGF-15 gene expression in developing mouse brain. *Gene Expr. Patterns* 3: 473-481.
7. Katoh, M. 2003. Evolutionary conservation of CCND1-ORAOV1-FGF19-FGF4 locus from zebrafish to human. *Int. J. Mol. Med.* 12: 45-50.
8. Wright, T.J., et al. 2004. Mouse FGF-15 is the ortholog of human and chick FGF-19, but is not uniquely required for otic induction. *Dev. Biol.* 269: 264-275.

CHROMOSOMAL LOCATION

Genetic locus: *Fgf15* (mouse) mapping to 7 F5.

SOURCE

FGF-15 (I-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of FGF-15 of mouse 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-27175 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

FGF-15 (I-18) is recommended for detection of precursor and mature FGF-15 of mouse and rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

Suitable for use as control antibody for FGF-15 siRNA (m): sc-39473, FGF-15 shRNA Plasmid (m): sc-39473-SH and FGF-15 shRNA (m) Lentiviral Particles: sc-39473-V.

Molecular Weight of FGF-15: 25 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

STORAGE

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

PROTOCOLS

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



Try **FGF-15 (D-9): sc-514647** or **FGF-15 (G-5): sc-398338**, our highly recommended monoclonal alternatives to FGF-15 (I-18).