

GDF-1 (G-17): sc-27411

BACKGROUND

Growth/differentiation factors (GDFs) are members of the TGF β superfamily. Members of the TGF β superfamily are involved in embryonic development and adult tissue homeostasis. GDF-1 expression is almost exclusively restricted to the central nervous system, most strongly expressed in the hippocampus and cortex of the brain. The function of GDF-1 is not completely known, however, it may mediate cell differentiation events during embryonic development.

REFERENCES

1. Massague, J. 1990. The transforming growth factor β family. *Ann. Rev. Cell. Biol.* 6: 597-641.
2. Lee, S.J. 1990. Identification of a novel member (GDF-1) of the transforming growth factor β superfamily. *Mol. Endocrinol.* 4: 1034-1040.
3. Lee, S.J. 1991. Expression of growth/differentiation factor 1 in the nervous system: conservation of a bicistronic structure. *Proc. Natl. Acad. Sci. USA* 88: 4250-4254.
4. McPherron, A.C., et al. 1997. Regulation of skeletal muscle mass in mice by a new TGF β superfamily member. *Nature* 387: 83-90.
5. Ebendal, T., et al. 1998. Bone morphogenetic proteins and their receptors: potential functions in the brain. *J. Neurosci. Res.* 51: 139-146.
6. Soderstrom, S., et al. 1999. Localized expression of BMP and GDF mRNA in the rodent brain. *J. Neurosci. Res.* 56: 482-492.
7. Rankin, C.T., et al. 2000. Regulation of left-right patterning in mice by growth/differentiation factor-1. *Nat. Genet.* 24: 262-265.

CHROMOSOMAL LOCATION

Genetic locus: GDF1 (human) mapping to 19p13.11.

SOURCE

GDF-1 (G-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of GDF-1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-27411 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

Store at 4 $^{\circ}$ 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.

APPLICATIONS

GDF-1 (G-17) is recommended for detection of precursor and mature GDF-1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for GDF-1 siRNA (h): sc-39764, GDF-1 shRNA Plasmid (h): sc-39764-SH and GDF-1 shRNA (h) Lentiviral Particles: sc-39764-V.

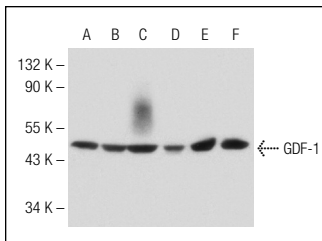
Molecular Weight of GDF-1: 40 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, A-375 cell lysate: sc-3811 or HL-60 whole cell lysate: sc-2209.

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 MarkerTM compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz MarkerTM Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 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 UltraCruzTM Mounting Medium: sc-24941.

DATA



GDF-1 (G-17): sc-27411. Western blot analysis of GDF-1 expression in Hep G2 (A), A-375 (B), HL-60 (C), BE (2)-M17 (D), T98G (E) and SK-N-MC (F) whole cell lysates.

RESEARCH USE

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