

GDF-8 (N-19)-R: sc-6885-R

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. Neither GDF-3 (Vgr-2) nor GDF-9 contains the conserved cysteine residue which is found in most other TGF β superfamily members. GDF-3 is detectable in bone marrow, spleen, thymus and adipose tissue, whereas GDF-9 has only been detected in ovary. GDF-5 (also designated CDMP-1) has been shown to induce activation of plasminogen activator, thereby inducing angiogenesis. It is predominantly expressed in long bones during fetal embryonic development and is involved in bone formation. GDF-5 mutations have been identified in mice with the mutation brachypodism (bp), a mutation which affects the length and number of bones in limbs. GDF-6 and GDF-7 are closely related to GDF-5. GDF-8 has been shown to be a negative regulator of skeletal muscle growth.

REFERENCES

1. Massague, J. 1990. The transforming growth factor β family. *Annu. Rev. Cell Biol.* 6: 597-641.
2. 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.
3. McPherron, A.C. and Lee, S.J. 1993. GDF-3 and GDF-9: two new members of the transforming growth factor β superfamily containing a novel pattern of cysteines. *J. Biol. Chem.* 268: 3444-3449.
4. Storm, E.E., et al. 1994. Limb alterations in brachypodism mice due to mutations in a new member of the TGF β superfamily. *Nature* 368: 639-643.

CHROMOSOMAL LOCATION

Genetic locus: GDF8 (human) mapping to 2q32.2; Gdf8 (mouse) mapping to 1 C1.1.

SOURCE

GDF-8 (N-19)-R is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of GDF-8 of mouse origin.

PRODUCT

Each vial contains 100 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-6885 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

GDF-8 (N-19)-R is recommended for detection of precursor GDF-8 of mouse, rat and 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).

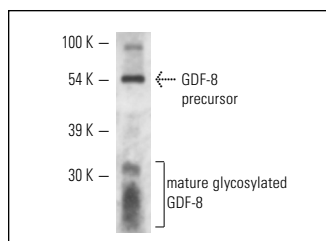
Suitable for use as control antibody for GDF-8 siRNA (h): sc-39774, GDF-8 siRNA (m): sc-39775, GDF-8 shRNA Plasmid (h): sc-39774-SH, GDF-8 shRNA Plasmid (m): sc-39775-SH, GDF-8 shRNA (h) Lentiviral Particles: sc-39774-V and GDF-8 shRNA (m) Lentiviral Particles: sc-39775-V.

Molecular Weight of GDF-8 precursor: 52 kDa.

Molecular Weight of mature GDF-8: 26 kDa.

Positive Controls: rat skeletal muscle extract: sc-364810, rat brain extract: sc-2392 or mouse embryo extract: sc-364239.

DATA



GDF-8 (N-19)-R: sc-6885-R. Western blot analysis of GDF-8 expression in rat skeletal muscle tissue extract.

SELECT PRODUCT CITATIONS

1. Willoughby, D., et al. 2004. Effects of concentric and eccentric muscle actions on serum myostatin and follistatin-like related gene levels. *J. Sci. Med. Sport* 3: 226-233.
2. Lima, A.R., et al. 2010. Myostatin and follistatin expression in skeletal muscles of rats with chronic heart failure. *Int. J. Exp. Pathol.* 91: 54-62.
3. Gustafsson, T., et al. 2010. Effects of 3 days unloading on molecular regulators of muscle size in humans. *J. Appl. Physiol.* 109: 721-727.
4. Damatto, R.L., et al. 2012. Heart failure-induced skeletal myopathy in spontaneously hypertensive rats. *Int. J. Cardiol.* 167: 698-703.

RESEARCH USE

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

MONOS
Satisfaction
Guaranteed

Try **GDF-8 (1L4): sc-134345** or **GDF-8/11 (A-1): sc-398333**, our highly recommended monoclonal alternatives to GDF-8 (N-19).