SANTA CRUZ BIOTECHNOLOGY, INC.

GDF-8/11 (H-109): sc-28910

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Growth/differentiation factors (GDFs) are members of the TGF superfamily. Members of the TGF superfamily are involved in embryonic development and adult tissue homeostasis. GDF-8, also known as myostatin, has been shown to be a negative regulator of skeletal muscle growth. GDF-11 has been shown to control anterior/posterior patterning of the axial skeleton, and also regulates kidney and pancreas organogenesis. GDF-11 controls anterior/posterior patterning of the axial skeleton, regulates organogenesis by controlling the expression of GDNF, contributes to the control of HOX gene expression and induces phosphorylation of Smad2. In addition, GDF-11 mediates signaling of Nodal during left-right patterning and development of head structures and inhibits generation of new neurons by neuronal progenitors in the olfactory epithelium.

CHROMOSOMAL LOCATION

Genetic locus: GDF8 (human) mapping to 2q32.2, GDF11 (human) mapping to 12q13.2; Gdf8 (mouse) mapping to 1 C1.1, Gdf11 (mouse) mapping to 10 D3.

SOURCE

GDF-8/11 (H-109) is a rabbit polyclonal antibody raised against amino acids 267-375 mapping at the C-terminus of GDF-8 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.

STORAGE

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

APPLICATIONS

GDF-8/11 (H-109) is recommended for detection of precursor and mature GDF-8 and GDF-11 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).

GDF-8/11 (H-109) is also recommended for detection of precursor and mature GDF-8 and GDF-11 in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of GDF-8 precursor: 52 kDa.

Molecular Weight of mature GDF-8: 26 kDa.

Molecular Weight of GDF-11 precursor: 50 kDa.

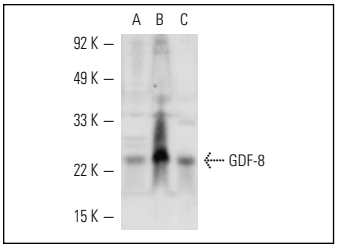
Molecular Weight of mature GDF-11: 13 kDa.

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

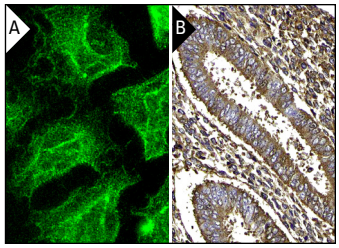
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941. 4) Immunohistochemistry: use ImmunoCruz™: sc-2051 or ABC: sc-2018 rabbit IgG Staining Systems.

DATA



GDF-8/11 (H-109): sc-28910. Western blot analysis of mature GDF-8 expression in mouse embryo (**A**), rat skeletal muscle (**B**) and rat brain (**C**) tissue extracts.



GDF-8/11 (H-109): sc-28910. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded endometrium tissue showing cytoplasmic staining of cells in endometrial stroma and glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**B**).

RESEARCH USE

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

PROTOCOLS

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