SANTA CRUZ BIOTECHNOLOGY, INC.

GDF-8/11 (C-20): sc-6884

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: MSTN (human) mapping to 2q32.2, GDF11 (human) mapping to 12q13.2; Mstn (mouse) mapping to 1 C1.1, Gdf11 (mouse) mapping to10 D3.

SOURCE

GDF-8/11 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of GDF-8 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-6884 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

GDF-8/11 (C-20) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

GDF-8/11 (C-20) 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 mature GDF-8: 26 kDa.

Molecular Weight of GDF-8 precursor: 52 kDa.

Molecular Weight of mature GDF-11: 13 kDa.

Molecular Weight of GDF-11 precursor: 50 kDa.

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

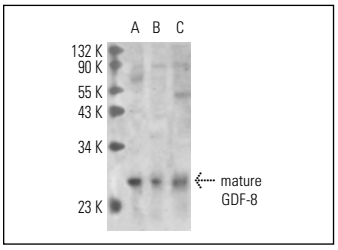
STORAGE

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



GDF-8/11 (C-20): sc-6884. Western blot analysis of GDF-8 expression in mouse embryo (**A**), rat skeletal muscle (**B**) and rat brain (**C**) tissue extracts.

SELECT PRODUCT CITATIONS

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4. Welle, S., et al. 2009. Skeletal muscle gene expression after myostatin knockout in mature mice. Physiol. Genomics 38: 342-350.
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8. Wang, X.Q., et al. 2012. The differential proliferative ability of satellite cells in Lantang and Landrace pigs. PLoS ONE 7: e32537.
9. Brun, C., et al. 2014. Absence of hyperplasia in Gasp-1 overexpressing mice is dependent on myostatin up-regulation. Cell. Physiol. Biochem. 34: 1241-1259.