SANTA CRUZ BIOTECHNOLOGY, INC.

GDF-9B (F-7): sc-271824

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. Growth and differentiation factor 9B (GDF-9B), also known as bone morphogenetic protein 15 (BMP15), is expressed exclusively in the oocyte. GDF-9B is closely related to GDF-9, another oocyte-specific member of this superfamily which has been shown to be essential for early ovarian folliculogenesis.

CHROMOSOMAL LOCATION

Genetic locus: BMP15 (human) mapping to Xp11.22.

SOURCE

GDF-9B (F-7) is a mouse monoclonal antibody raised against amino acids 268-350 mapping near the C-terminus of GDF-9B of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

GDF-9B (F-7) is available conjugated to agarose (sc-271824 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-271824 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-271824 PE), fluorescein (sc-271824 FITC), Alexa Fluor® 488 (sc-271824 AF488), Alexa Fluor® 546 (sc-271824 AF546), Alexa Fluor® 594 (sc-271824 AF594) or Alexa Fluor® 647 (sc-271824 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-271824 AF680) or Alexa Fluor® 790 (sc-271824 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

RESEARCH USE

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

APPLICATIONS

GDF-9B (F-7) is recommended for detection of mature and precursor GDF-9B of human and hamster origin by Western Blotting (starting dilution 1:100, 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).

Suitable for use as control antibody for GDF-9B siRNA (h): sc-39778, GDF-9B shRNA Plasmid (h): sc-39778-SH and GDF-9B shRNA (h) Lentiviral Particles: sc-39778-V.

Molecular Weight of GDF-9B mature human doublet: 16/17 kDa.

Molecular Weight (predicted) of GDF-9B precursor: 45 kDa.

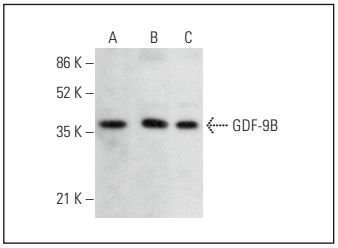
Molecular Weight (observed) of GDF-9B homodimer: 35 kDa.

Positive Controls: CHO-K1 cell lysate: sc-3809, CCRF-CEM cell lysate: sc-2225 or HeLa whole cell lysate: sc-2200.

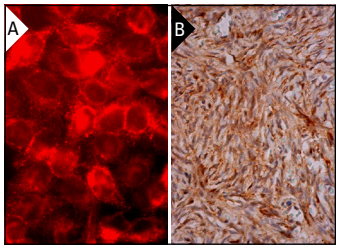
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



GDF-9B (F-7): sc-271824. Western blot analysis of GDF-9B expression in CHO-K1 (**A**), HeLa (**B**) and CCRF-CEM (**C**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



GDF-9B (F-7): sc-271824. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human ovary tissue showing cytoplasmic staining of ovarian stroma cells (**B**).

SELECT PRODUCT CITATIONS

1. Daneshjou, D., et al. 2022. Sitagliptin/metformin improves the fertilization rate and embryo quality in polycystic ovary syndrome patients through increasing the expression of GDF-9 and BMP15: a new alternative to metformin (a randomized trial). J. Reprod. Immunol. 150: 103499.
2. Meng, L., et al. 2023. Identification of oogonial stem cells in chicken ovary. Cell Prolif. 56: e13371.

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 for detailed protocols and support products.