

GCM1 (H-300): sc-98719

BACKGROUND

GCM1 (glial cells missing homolog 1), also known as GCMA or hGCMA, is a 436 amino acid human homolog of the *Drosophila* glial cells missing protein (GCM). Localized to the nucleus and expressed specifically in placenta, GCM1 functions as a transcription factor that binds the novel sequence (A/G)CCCG-CAT and, through this binding, regulates placental development. Additionally, GCM1 is thought to regulate syncytin SU-mediated trophoblastic fusion, an event that produces syncytiotrophoblast structures which, in turn, function as the outermost covering of the placental villi. GCM1 contains one N-terminal GCM (glial cell missing) DNA-binding domain, a conserved 150 amino acid residue that conveys DNA-binding activity for a variety of transcription factors involved in developmental processes.

REFERENCES

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3. Yamada, K., et al. 2000. Genomic organization, chromosomal localization, and the complete 22 kb DNA sequence of the human GCMA/GCM1, a placenta-specific transcription factor gene. Biochem. Biophys. Res. Commun. 278: 134-139.
4. Yu, C., et al. 2002. GCMA regulates the syncytin-mediated trophoblastic fusion. J. Biol. Chem. 277: 50062-50068.
5. Baczyk, D., et al. 2004. Complex patterns of GCM1 mRNA and protein in villous and extravillous trophoblast cells of the human placenta. Placenta 25: 553-559.
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8. Chuang, H.C., et al. 2006. Histone deacetylase 3 binds to and regulates the GCMA transcription factor. Nucleic Acids Res. 34: 1459-1469.
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CHROMOSOMAL LOCATION

Genetic locus: GCM1 (human) mapping to 6p12.1; Gcm1 (mouse) mapping to 9 E1.

SOURCE

GCM1 (H-300) is a rabbit polyclonal antibody raised against amino acids 137-436 mapping at the C-terminus of GCM1 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-98719 X, 200 µg/0.1 ml.

APPLICATIONS

GCM1 (H-300) is recommended for detection of GCM1 of human and, to a lesser extent, mouse and rat 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).

Suitable for use as control antibody for GCM1 siRNA (h): sc-75117, GCM1 siRNA (m): sc-75118, GCM1 shRNA Plasmid (h): sc-75117-SH, GCM1 shRNA Plasmid (m): sc-75118-SH, GCM1 shRNA (h) Lentiviral Particles: sc-75117-V and GCM1 shRNA (m) Lentiviral Particles: sc-75118-V.

GCM1 (H-300) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of GCM1: 49 kDa.

Positive Controls: FHs 173We cell lysate: sc-2417.

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.

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.

PROTOCOLS

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



Try **GCM1 (R-06): sc-101173**, our highly recommended monoclonal alternative to GCM1 (H-300).