

GCM2 (C-5): sc-390603



The Power to Question

BACKGROUND

Glial cells missing homolog 2 (GCM2), also known as Chorion-specific transcription factor GCMb, is a 506 amino acid nuclear protein. GCM2 is a transcription factor that acts as an essential regulator of parathyroid development. GCM2 is also thought to mediate the effect of calcium on parathyroid hormone expression and secretion in parathyroid cells. GCM2 contains one N-terminal GCM domain, which has DNA binding activity. Mutations of the gene that encodes GCM2 are associated with hypoparathyroidism, an autosomal recessive condition characterized by hypocalcemia and hyperphosphatemia.

REFERENCES

1. Kebebew, E., et al. 2004. GCMB gene, a master regulator of parathyroid gland development, expression, and regulation in hyperparathyroidism. *Surgery* 136: 1261-1266.
2. Thomee, C., et al. 2005. GCMB mutation in familial isolated hypoparathyroidism with residual secretion of parathyroid hormone. *J. Clin. Endocrinol. Metab.* 90: 2487-2492.
3. Baumber, L., et al. 2005. Identification of a novel mutation disrupting the DNA binding activity of GCM2 in autosomal recessive familial isolated hypoparathyroidism. *J. Med. Genet.* 42: 443-448.
4. Liu, Z., et al. 2007. GCM2 is required for the differentiation and survival of parathyroid precursor cells in the parathyroid/thymus primordia. *Dev. Biol.* 305: 333-346.
5. Soustelle, L. and Giangrande, A. 2007. Novel gcm-dependent lineages in the postembryonic nervous system of *Drosophila melanogaster*. *Dev. Dyn.* 236: 2101-2108.

CHROMOSOMAL LOCATION

Genetic locus: GCM2 (human) mapping to 6p24.2; Gcm2 (mouse) mapping to 13 A3.3.

SOURCE

GCM2 (C-5) is a mouse monoclonal antibody raised against amino acids 183-410 mapping within an internal region of GCM2 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain 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-390603 X, 200 µg/0.1 ml.

GCM2 (C-5) is available conjugated to agarose (sc-390603 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-390603 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-390603 PE), fluorescein (sc-390603 FITC), Alexa Fluor® 488 (sc-390603 AF488), Alexa Fluor® 546 (sc-390603 AF546), Alexa Fluor® 594 (sc-390603 AF594) or Alexa Fluor® 647 (sc-390603 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-390603 AF680) or Alexa Fluor® 790 (sc-390603 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

GCM2 (C-5) is recommended for detection of GCM2 of mouse, rat and human 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for GCM2 siRNA (h): sc-75119, GCM2 siRNA (m): sc-75120, GCM2 shRNA Plasmid (h): sc-75119-SH, GCM2 shRNA Plasmid (m): sc-75120-SH, GCM2 shRNA (h) Lentiviral Particles: sc-75119-V and GCM2 shRNA (m) Lentiviral Particles: sc-75120-V.

GCM2 (C-5) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of GCM2: 65-70 kDa.

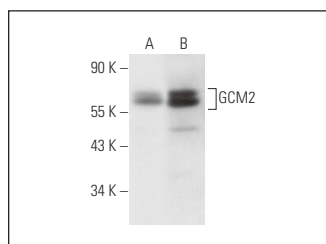
Positive Controls: F9 cell lysate: sc-2245, BC₃H1 cell lysate: sc-2299 or EOC 20 whole cell lysate: sc-364187.

RECOMMENDED SUPPORT REAGENTS

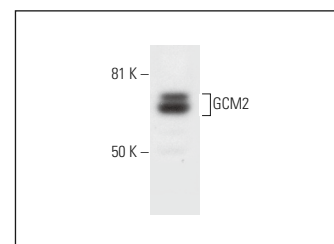
To ensure optimal results, the following support reagents are recommended:

- 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.

DATA



GCM2 (C-5): sc-390603. Western blot analysis of GCM2 expression in BC₃H1 (A) and EOC 20 (B) whole cell lysates.



GCM2 (C-5): sc-390603. Western blot analysis of GCM2 expression in F9 whole cell lysate.

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.