

# GMEB-2 (364C1a): sc-81093

## BACKGROUND

GMEB-2 (glucocorticoid modulatory element binding protein 2), also known as PIF79 (parvovirus initiation factor p79) or P79PIF, is a DNA-binding protein that plays a crucial role modulating transcription upon activation by steroid hormones. GMEB-2 is ubiquitously expressed with preferential expression in developmentally important tissues, such as testis, bone marrow, placenta and fetal tissues. It localizes to the nucleus and cytoplasm and contains a SAND domain near its N-terminus and a C-terminal coiled-coil structure. GMEB-2 functions as a homodimer or as a heterodimer with GMEB-1. The formed complex specifically binds to glucocorticoid modulatory elements (GME) in the promoter region of target genes and recruits the histone acetylase CREB binding protein (CBP) during glucocorticoid signaling. This acts to increase sensitivity to low concentrations of glucocorticoids. In addition, GMEB-2 functions as an auxiliary factor required for parvovirus replication.

## REFERENCES

- Christensen, J., et al. 1999. Two new members of the emerging KDWK family of combinatorial transcription modulators bind as a heterodimer to flexibly spaced PuCGPy half-sites. *Mol. Cell. Biol.* 19: 7741-7750.
- Therault, J.R., et al. 1999. Cloning and characterization of hGMEB1, a novel glucocorticoid modulatory element binding protein. *FEBS Lett.* 452: 170-176.
- Nagase, T., et al. 2000. Prediction of the coding sequences of unidentified human genes. XV. The complete sequences of 100 new cDNA clones from brain which code for large proteins *in vitro*. *DNA Res.* 6: 337-345.
- Kaul, S., et al. 2000. Properties of the glucocorticoid modulatory element binding proteins GMEB-1 and -2: potential new modifiers of glucocorticoid receptor transactivation and members of the family of KDWK proteins. *Mol. Endocrinol.* 14: 1010-1027.
- Zeng, H., et al. 2000. Genomic organization of human GMEB-1 and rat GMEB-2: structural conservation of two multifunctional proteins. *Nucleic Acids Res.* 28: 1819-1829.
- Jimenez-Lara, A.M., et al. 2000. Cloning of a mouse glucocorticoid modulatory element binding protein, a new member of the KDWK family. *FEBS Lett.* 468: 203-210.

## CHROMOSOMAL LOCATION

Genetic locus: GMEB2 (human) mapping to 20q13.33.

## SOURCE

GMEB-2 (364C1a) is a mouse monoclonal antibody raised against a recombinant protein corresponding to an internal region of GMEB-2 of human origin.

## PRODUCT

Each vial contains 100 µg IgG<sub>2b</sub> in 1.0 ml of PBS with < 0.1% sodium azide and 1.0% stabilizer protein.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.

## APPLICATIONS

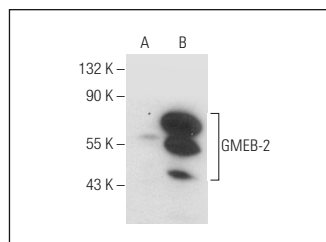
GMEB-2 (364C1a) is recommended for detection of GMEB-2 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for GMEB-2 siRNA (h): sc-75156, GMEB-2 shRNA Plasmid (h): sc-75156-SH and GMEB-2 shRNA (h) Lentiviral Particles: sc-75156-V.

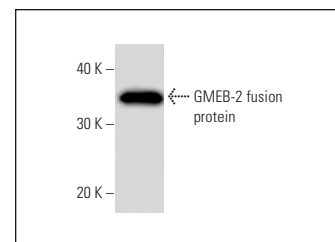
Molecular Weight of GMEB-2: 79 kDa.

Positive Controls: GMEB-2 (h): 293 Lysate: sc-114627, HeLa nuclear extract: sc-2120 or Jurkat nuclear extract: sc-2132.

## DATA



GMEB-2 (364C1a): sc-81093. Western blot analysis of GMEB-2 expression in non-transfected: sc-117752 (A) and human GMEB-2 transfected: sc-114627 (B) 293T whole cell lysates.



GMEB-2 (364C1a): sc-81093. Western Blot analysis of human recombinant GMEB-2 fusion protein.

## STORAGE

For immediate and continuous use, store at 4° C for up to one month. For sporadic use, freeze in working aliquots in order to avoid repeated freeze/thaw cycles. If turbidity is evident upon prolonged storage, clarify solution by centrifugation.

## RESEARCH USE

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