

GMEB-1 (H-95): sc-98398

BACKGROUND

GMEB-1 (glucocorticoid modulatory element-binding protein-1), also known as PIF p96 (parvovirus initiation factor p96), is a 573 amino acid protein that contains one SAND domain and is a member of the KDWK family of combinatorial transcription modulators. Localized to both the cytoplasm and the nucleus, GMEB-1 forms a heterodimer with GMEB-2 (glucocorticoid modulatory element-binding protein-2) and, once associated with GMEB-2, plays a key role in parvovirus DNA replication. In addition, GMEB-1 functions alone as a *trans*-acting factor that, by binding to glucocorticoid modulatory elements (GMEs) in TAT (tyrosine aminotransferase) promoters, increases intracellular sensitivity to glucocorticoid concentrations. GMEB-1 also interacts with initiator procaspases and, via this interaction, can inhibit caspase-induced apoptosis. Due to alternative splicing events, GMEB-1 is expressed as two isoforms.

REFERENCES

- Oshima, H., et al. 1995. The factor binding to the glucocorticoid modulatory element of the tyrosine aminotransferase gene is a novel and ubiquitous heteromeric complex. *J. Biol. Chem.* 270: 21893-21901.
- 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.
- Thériault, J.R., et al. 1999. Cloning and characterization of hGMEB-1, a novel glucocorticoid modulatory element binding protein. *FEBS Lett.* 452: 170-176.
- 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.
- Burnett, E., et al. 2001. A consensus DNA recognition motif for two KDWK transcription factors identifies flexible-length, CpG-methylation sensitive cognate binding sites in the majority of human promoters. *J. Mol. Biol.* 314: 1029-1039.

CHROMOSOMAL LOCATION

Genetic locus: GMEB1 (human) mapping to 1p35.3; Gmeb1 (mouse) mapping to 4 D2.3.

SOURCE

GMEB-1 (H-95) is a rabbit polyclonal antibody raised against amino acids 225-319 mapping within an internal region of GMEB-1 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. Also available as TransCruz reagent for Gel Supershift and ChIP applications, sc-98398 X, 200 µg/0.1 ml.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

GMEB-1 (H-95) is recommended for detection of GMEB-1 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).

GMEB-1 (H-95) is also recommended for detection of GMEB-1 in additional species, including equine, canine, bovine and avian.

Suitable for use as control antibody for GMEB-1 siRNA (h): sc-88666, GMEB-1 siRNA (m): sc-105402, GMEB-1 shRNA Plasmid (h): sc-88666-SH, GMEB-1 shRNA Plasmid (m): sc-105402-SH, GMEB-1 shRNA (h) Lentiviral Particles: sc-88666-V and GMEB-1 shRNA (m) Lentiviral Particles: sc-105402-V.

GMEB-1 (H-95) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of GMEB-1: 85 kDa.

Positive Controls: HeLa nuclear extract: sc-2120.

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.

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.


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Guaranteed

Try **GMEB-1 (H-2): sc-376775** or **GMEB-1 (LL-18): sc-100753**, our highly recommended monoclonal alternatives to GMEB-1 (H-95).