

GMEB-1 (H-2): sc-376775

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 hGMEB1, 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.

CHROMOSOMAL LOCATION

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

SOURCE

GMEB-1 (H-2) is a mouse monoclonal antibody raised against amino acids 225-319 mapping within an internal region of GMEB-1 of mouse 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-376775 X, 200 µg/0.1 ml.

GMEB-1 (H-2) is available conjugated to agarose (sc-376775 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-376775 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376775 PE), fluorescein (sc-376775 FITC), Alexa Fluor® 488 (sc-376775 AF488), Alexa Fluor® 546 (sc-376775 AF546), Alexa Fluor® 594 (sc-376775 AF594) or Alexa Fluor® 647 (sc-376775 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376775 AF680) or Alexa Fluor® 790 (sc-376775 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

GMEB-1 (H-2) is recommended for detection of GMEB-1 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), 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).

GMEB-1 (H-2) is also recommended for detection of GMEB-1 in additional species, including equine, canine and bovine.

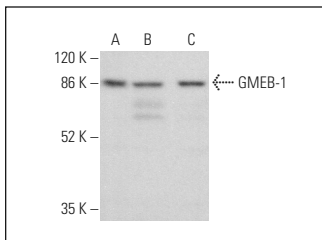
Suitable for use as control antibody for GMEB-1 siRNA (h): sc-88666, GMEB-1 siRNA (m): sc-105402, GMEB-1 shRNA Plasmid (h): sc-88666-SH, GMEB-1 shRNA Plasmid (m): sc-105402-SH, GMEB-1 shRNA (h) Lentiviral Particles: sc-88666-V and GMEB-1 shRNA (m) Lentiviral Particles: sc-105402-V.

GMEB-1 (H-2) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

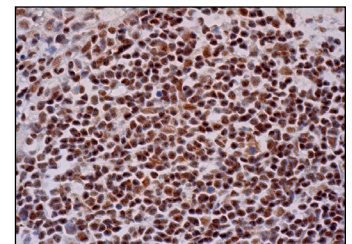
Molecular Weight of GMEB-1: 85 kDa.

Positive Controls: HeLa nuclear extract: sc-2120, HEL 92.1.7 cell lysate: sc-2270 or Daudi cell lysate: sc-2415.

DATA



GMEB-1 (H-2): sc-376775. Western blot analysis of GMEB-1 expression in HeLa nuclear extract (A) and HEL 92.1.7 (B) and Daudi (C) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



GMEB-1 (H-2): sc-376775. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing nuclear staining of cells in germinal and non-germinal centers.

SELECT PRODUCT CITATIONS

- An, W., et al. 2019. Glucocorticoid modulatory element-binding protein 1 (GMEB1) interacts with the de-ubiquitinase USP40 to stabilize CFLARL and inhibit apoptosis in human non-small cell lung cancer cells. *J. Exp. Clin. Cancer Res.* 38: 181.

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 for detailed protocols and support products.