

ESE-1 (h2): 293T Lysate: sc-159172

BACKGROUND

ESE-1, a member of the Ets family of transcription factors, critically regulates epithelial cell differentiation and mediates vascular inflammation. ESE-1 is strongly expressed in vascular endothelium and smooth muscle cells, where it is induced in response to inflammatory cytokines and lipopolysaccharides, interacts with NF κ B to induce nitric oxide synthase, and is induced during terminal differentiation of epidermal and primary keratinocytes. In addition, ESE-1 is upregulated upon differentiation of corneal epithelium and interacts with Sp1 and AP-1 proteins to induce squamous differentiation marker expression in bronchial epithelial cells.

REFERENCES

- Oettgen, P., et al. 1997. Isolation and characterization of a novel epithelium-specific transcription factor, ESE-1, a member of the Ets family. *Mol. Cell. Biol.* 17: 4419-4433.
- Rudders, S., et al. 2000. ESE-1 is a novel transcriptional mediator of inflammation that interacts with NF κ B to regulate the inducible nitric oxide synthase gene. *J. Biol. Chem.* 276: 3302-3309.
- Yoshida, N., et al. 2000. Ets family transcription factor ESE-1 is expressed in corneal epithelial cells and is involved in their differentiation. *Mech. Dev.* 97: 27-34.
- Reddy, S.P., et al. 2003. Interplay between proximal and distal promoter elements is required for squamous differentiation marker induction in the bronchial epithelium: role for ESE-1, Sp1, and AP-1. *J. Biol. Chem.* 278: 21378-21387.
- Wang, H., et al. 2004. Positive and negative modulation of the transcriptional activity of the Ets factor ESE-1 through interaction with p300, CREB-binding protein, and Ku-70/Ku-86. *J. Biol. Chem.* 279: 25241-25250.
- Prescott, J.D., et al. 2004. The Ets transcription factor ESE-1 transforms MCF-12A human mammary epithelial cells via a novel cytoplasmic mechanism. *Mol. Cell. Biol.* 24: 5548-5564.
- Grall, F.T., et al. 2005. The Ets transcription factor ESE-1 mediates induction of the Cox-2 gene by LPS in monocytes. *FEBS J.* 272: 1676-1687.
- Murumagi, A., et al. 2006. Ets transcription factors regulate AIRE gene promoter. *Biochem. Biophys. Res. Commun.* 348: 768-774.

CHROMOSOMAL LOCATION

Genetic locus: ELF3 (human) mapping to 1q32.1.

PRODUCT

ESE-1 (h2): 293T Lysate represents a lysate of human ESE-1 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

APPLICATIONS

ESE-1 (h2): 293T Lysate is suitable as a Western Blotting positive control for human reactive ESE-1 antibodies. Recommended use: 10-20 μ l per lane.

Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

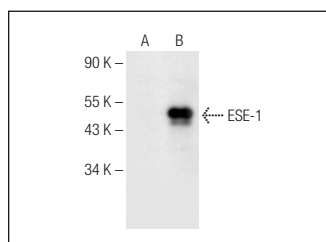
ESE-1 (E-8): sc-376055 is recommended as a positive control antibody for Western Blot analysis of enhanced human ESE-1 expression in ESE-1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

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

1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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.

DATA



ESE-1 (E-8): sc-376055. Western blot analysis of ESE-1 expression in non-transfected: sc-117752 (A) and human ESE-1 transfected: sc-159172 (B) 293T whole cell lysates.

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.