

ESE-3A (N-20): sc-15448

BACKGROUND

Epithelium-specific Ets factor, family member-3 (ESE-3) is a distinct member of the ESE subfamily of Ets transcription factors. Ets factors constitute one important class of transcriptional regulators that play critical roles in hematopoiesis, angiogenesis, organogenesis, oncogenesis and specification of neuronal connectivity. ESE-3 shares highest homology with two other epithelium restricted Ets factors, ESE-1 and Elf-5 (also known as ESE-2). ESE-3, like ESE-1 and Elf-5, is exclusively expressed in a subset of epithelial cells, with highest expression detected in glandular epithelium of the prostate, pancreas, salivary gland and trachea. ESE-3 transactivates the c-Met promoter via three high affinity binding sites, which suggests that ESE-3 may contribute to branching morphogenesis. Additionally, ESE-3 may influence later stages of glandular epithelium differentiation, as it binds to the promoter regions of several glandular epithelium-specific genes.

REFERENCES

1. Nelsen, B., Tian, G., Erman, B., Gregoire, J., Maki, R., Graves, B. and Sen, R. 1993. Regulation of lymphoid-specific immunoglobulin μ heavy chain gene enhancer by Ets-domain proteins. *Science* 261: 82-86.
2. 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.
2. Graves, B.J. and Petersen, J.M. 1998. Specificity within the Ets family of transcription factors. *Adv. Cancer Res.* 75: 1-55.
3. Lin, J.H., Saito, T., Anderson, D.J., Lance-Jones, C., Jessell, T.M. and Arber, S. 1998. Functionally related motor neuron pool and muscle sensory afferent subtypes defined by coordinate Ets gene expression. *Cell* 95: 393-407.
4. Wasylyk, B., Hagman, J. and Gutierrez-Hartmann, A. 1998. Ets transcription factors: nuclear effectors of the Ras-MAP-kinase signaling pathway. *Trends Biochem. Sci.* 23: 213-216.
5. Kas, K., Finger, E., Grall, F., Gu, X., Akbarali, Y., Boltax, J., Weiss, A., Oettgen, P., Kapeller, R. and Libermann, T.A. 2000. ESE-3, a novel member of an epithelium-specific Ets transcription factor subfamily, demonstrates different target gene specificity from ESE-1. *J. Biol. Chem.* 275: 2986-2998.

CHROMOSOMAL LOCATION

Genetic locus: EHF (human) mapping to 11p13; Ehf (mouse) mapping to 2 E2.

SOURCE

ESE-3A (N-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ESE-3A of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-15448 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

ESE-3A (N-20) is recommended for detection of ESE-3A of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

ESE-3A (N-20) is also recommended for detection of ESE-3A in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for ESE-3A siRNA (h): sc-37853, ESE-3A siRNA (m): sc-37854, ESE-3A shRNA Plasmid (m): sc-37854-SH, ESE-3A shRNA (h) Lentiviral Particles: sc-37853-V and ESE-3A shRNA (m) Lentiviral Particles: sc-37854-V.

Molecular Weight of ESE-3A isoforms: 35/33/24 kDa.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotting A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Appel, S., Bringmann, A., Grünebach, F., Weck, M.M., Bauer, J. and Brossart, P. 2005. Epithelial-specific transcription factor ESE-3 is involved in the development of monocyte-derived DCs. *Blood* 107: 3265-3270.

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 or our catalog for detailed protocols and support products.