SANTA CRUZ BIOTECHNOLOGY, INC.

IEX-1 (m): 293T Lysate: sc-120948

BACKGROUND

Tumors are frequently observed as resistant to apoptotic induction by FAS, tumor necrosis factor α (TNF-α) or irradiation. This anti-death activity may be attributed to immediate early-response genes that are regulated at the transcriptional level, including the protein IEX-1. IEX-1 (immediately early gene X-1), also known as IER3 (immediate early response 3), DIF-2 (differentiation-dependent gene 2 protein), immediate early protein GLY96 or PRG1 (PACAP-responsive gene 1 protein), is a 156 amino acid single-pass type II membrane protein that belongs to the IER3 family. IEX-1 was originally characterized as a gene induced by ultraviolet radiation and TNF-α, which protected human squamous carcinoma cells from apoptosis. Subsequent transfection studies have also shown that expression of IEX-1 in human keratinocytes and mouse fibroblasts results in more rapid proliferation of the cells as compared with controls. The promoter region of IEX-1 contains binding motifs for both NFκB and p53, suggesting that these proteins may regulate its expression.

REFERENCES

1. Beyaert, R., et al. 1994. Molecular mechanisms of tumor necrosis factor-induced cytotoxicity. What we do understand and what we do not. FEBS Lett. 340: 9-16.
2. Kondratyev, A.D., et al. 1996. Identification and characterization of a radiation-inducible glycosylated human early-response gene. Cancer Res. 56: 1498-1502.
3. Wu, M.X., et al. 1998. IEX-1_L, an apoptosis inhibitor involved in NFκB-mediated cell survival. Science 281: 998-1001.
4. Kobayashi, T., et al. 1998. Regulation of a novel immediate early response gene, IEX-1, in keratinocytes by 1α,25-ihydroxyvitamin D_3. Biochem. Biophys. Res. Commun. 251: 868-873.
5. Kumar, R., et al. 1998. A novel immediate early response gene, IEX-1, is induced by ultraviolet radiation in human keratinocytes. Biochem. Biophys. Res. Commun. 253: 336-341.
6. Schafer, H., et al. 1998. The promoter of human p22/PACAP response gene 1 (PRG1) contains functional binding sites for the p53 tumor suppressor and for NFκB. FEBS Lett. 436: 139-143.

CHROMOSOMAL LOCATION

Genetic locus: Ier3 (mouse) mapping to 17 B1.

PRODUCT

IEX-1 (m): 293T Lysate represents a lysate of mouse IEX-1 transfected 293T cells and is provided as 100 µg protein in 200 µl 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.

RESEARCH USE

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

APPLICATIONS

IEX-1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive IEX-1 antibodies. Recommended use: 10-20 µl per lane.

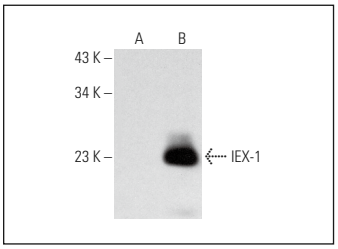
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

IEX-1 (E-2): sc-515605 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse IEX-1 expression in IEX-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-IgGκ BP-HRP: sc-516102 or m-IgGκ 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



IEX-1 (E-2): sc-515605. Western blot analysis of IEX-1 expression in non-transfected: sc-117752 (**A**) and mouse IEX-1 transfected: sc-120948 (**B**) 293T whole cell lysates.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.