

IEX-1 (E-2): sc-515605

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 NF κ B and p53, suggesting that these proteins may regulate its expression.

REFERENCES

1. Beyaert, R. and Fiers, W. 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-1L, an apoptosis inhibitor involved in NF κ B-mediated cell survival. *Science* 281: 998-1001.
4. 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.

CHROMOSOMAL LOCATION

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

SOURCE

IEX-1 (E-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 3-25 at the N-terminus of IEX-1 of mouse origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

IEX-1 (E-2) is available conjugated to agarose (sc-515605 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515605 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515605 PE), fluorescein (sc-515605 FITC), Alexa Fluor[®] 488 (sc-515605 AF488), Alexa Fluor[®] 546 (sc-515605 AF546), Alexa Fluor[®] 594 (sc-515605 AF594) or Alexa Fluor[®] 647 (sc-515605 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor[®] 680 (sc-515605 AF680) or Alexa Fluor[®] 790 (sc-515605 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-515605 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

IEX-1 (E-2) is recommended for detection of IEX-1 of mouse and rat origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

Suitable for use as control antibody for IEX-1 siRNA (m): sc-146148, IEX-1 shRNA Plasmid (m): sc-146148-SH and IEX-1 shRNA (m) Lentiviral Particles: sc-146148-V.

Molecular Weight (observed) of IEX-1: 23 kDa.

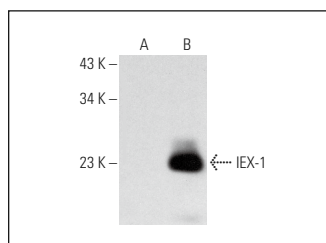
Molecular Weight (predicted) of IEX-1: 17 kDa.

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

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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz[®] Mounting Medium: sc-24941 or UltraCruz[®] Hard-set Mounting Medium: sc-359850.

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.

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.

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