SANTA CRUZ BIOTECHNOLOGY, INC.

# IER2 (S-14): sc-132722

## BACKGROUND

IER2 (immediate early response protein 2), also known as ETR101, is a 223 amino acid protein belonging to the immediate early response (IER) family. IER proteins are the first gene products to be induced during growth stimulation and/or arrest. IER2 expression can be induced by growth factors,12-O-tetradecanoylphorbol-13-acetate (TPA) or Okadaic acid. The coding region of IER2 contains regions of similarity to the transcription factor proteins that are encoded by the Jun oncogene family, possibly indicating a role for IER2 in transcription regulation. Further evidence for this role includes a GUUUG sequence in the 3' flanking region of IER2, which is believed to be a mRNA degradation signal similar to those found in transcription regulators.

## REFERENCES


1. Shimizu, N., Ohta, M., Fujiwara, C., Sagara, J., Mochizuki, N., Oda, T. and Utiyama, H. 1991. Expression of a novel immediate early gene during 12-O-tetradecanoylphorbol-13-acetate-induced macrophagic differentiation of HL-60 cells. J. Biol. Chem. 266: 12157-12161.
2. Slapak, C.A., Kharbanda, S., Saleem, A. and Kufe, D.W. 1993. Defective translocation of protein kinase C in multidrug-resistant HL-60 cells confers a reversible loss of phorbol ester-induced monocytic differentiation. J. Biol. Chem. 268: 12267-12273.
3. Scott, J.L., Dunn, S.M., Zeng, T., Baker, E., Sutherland, G.R. and Burns, G.F. 1994. Phorbol ester-induced transcription of an immediate-early response gene by human T cells is inhibited by co-treatment with calcium ionophore. J. Cell. Biochem. 54: 135-144.
4. Kondratyev, A.D., Chung, K.N. and Jung, M.O. 1996. Identification and characterization of a radiation-inducible glycosylated human early-response gene. Cancer Res. 56: 1498-1502.
5. Wang, Y., Gong, B., Dai, W. and Lu, L. 1998. Identification of immediate early genes during TPA-induced human myeloblastic leukemia ML-1 cell differentiation. Gene 216: 293-302.
6. Wu, M.X., Ao, Z., Prasad, K.V., Wu, R. and Schlossman, S.F. 1998. IEX-1L, an apoptosis inhibitor involved in NFκB-mediated cell survival. Science 281: 998-1001.
7. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 602996. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/


## CHROMOSOMAL LOCATION

Genetic locus: IER2 (human) mapping to 19p13.13.

## SOURCE

IER2 (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IER2 of human origin.

## STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## PRODUCT

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

Blocking peptide available for competition studies, sc-132722 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

IER2 (S-14) is recommended for detection of IER2 of 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); non cross-reactive with family members IER5 or IER5L.

Suitable for use as control antibody for IER2 siRNA (h): sc-97322, IER2 shRNA Plasmid (h): sc-97322-SH and IER2 shRNA (h) Lentiviral Particles: sc-97322-V.

Molecular Weight of IER2: 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 Blotto 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.

## 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.