SANTA CRUZ BIOTECHNOLOGY, INC.

IER5L (G-14): sc-240575

BACKGROUND

IER5L (immediate early response gene 5-like protein) is a 404 amino acid protein belonging to the immediate early response (IER) family of proteins. IER proteins are the first gene products to be induced during growth stimulation and/or arrest. Considered an early transcription factor, IER5 (immediate early response 5) may be involved in mediating PSP (proteins and peptide bound polysaccharides)-induced apoptosis in HL-60 cells. PSP extracted from Basidiomycetous fungi are widely used in cancer immunotherapy and suggested to induce apoptosis in cancer cells *in vitro*. Existing as two alternatively spliced isoforms, the gene encoding IER5L maps to human chromosome 9q34.11 and mouse chromosome 2 B.

REFERENCES

1. Williams, M., et al. 1999. Ier5, a novel member of the slow-kinetics immediate-early genes. Genomics 55: 327-334.
2. Cirelli, C. and Tononi, G. 2000. Gene expression in the brain across the sleep-waking cycle. Brain Res. 885: 303-321.
3. Göttgens, B., et al. 2002. Transcriptional regulation of the stem cell leukemia gene (SCL)-comparative analysis of five vertebrate SCL loci. Genome Res. 12: 749-759.
4. Okada, A., et al. 2005. Identification of early-responsive genes correlated to valproic acid-induced neural tube defects in mice. Birth Defects Res. A Clin. Mol. Teratol. 73: 229-238.
5. Zeng, F., et al. 2005. Molecular characterization of *Coriolus versicolor* PSP-induced apoptosis in human promyelotic leukemic HL-60 cells using cDNA microarray. Int. J. Oncol. 27: 513-523.
6. Kis, E., et al. 2006. Microarray analysis of radiation response genes in primary human fibroblasts. Int. J. Radiat. Oncol. Biol. Phys. 66: 1506-1514.
7. Ding, K.K., et al. 2009. Induced expression of the IER5 gene by gamma-ray irradiation and its involvement in cell cycle checkpoint control and survival. Radiat Environ Biophys. 48: 205-213.

CHROMOSOMAL LOCATION

Genetic locus: IER5L (human) mapping to 9q34.11; Ier5l (mouse) mapping to 2 B.

SOURCE

IER5L (G-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of IER5L of human origin.

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-240575 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

IER5L (G-14) is recommended for detection of IER5L 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).

Suitable for use as control antibody for IER5L siRNA (h): sc-92876, IER5L siRNA (m): sc-146147, IER5L shRNA Plasmid (h): sc-92876-SH, IER5L shRNA Plasmid (m): sc-146147-SH, IER5L shRNA (h) Lentiviral Particles: sc-92876-V and IER5L shRNA (m) Lentiviral Particles: sc-146147-V.

Molecular Weight of IER5L isoforms 1/2: 42/25 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.

STORAGE

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

PROTOCOLS

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