

# IER5 (C-14): sc-162955

## BACKGROUND

IER5 (immediate early response 5), also known as SBBI48, is a 327 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 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*. The gene encoding IER5 is located on human chromosome 1, which houses over 3,000 genes and is the largest human chromosome spanning about 260 million base pairs and making up 8% of the human genome.

## REFERENCES

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- 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.
- Okada, A., et al. 2005. Identification of early-responsive genes correlated to valproic acid-induced neural tube defects in mice. *Birth Defects Res. Part A Clin. Mol. Teratol.* 73: 229-238.
- 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.
- Kis, E., et al. 2006. Microarray analysis of radiation response genes in primary human fibroblasts. *Int. J. Radiat. Oncol. Biol. Phys.* 66: 1506-1514.
- 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: IER5 (human) mapping to 1q25.3; Ier5 (mouse) mapping to 1 G3.

## SOURCE

IER5 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of IER5 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) or our catalog for detailed protocols and support products.

## PRODUCT

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

Blocking peptide available for competition studies, sc-162955 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

IER5 (C-14) is recommended for detection of IER5 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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); non cross-reactive with other IER family members.

IER5 (C-14) is also recommended for detection of IER5 in additional species, including bovine.

Suitable for use as control antibody for IER5 siRNA (h): sc-88172, IER5 siRNA (m): sc-146146, IER5 shRNA Plasmid (h): sc-88172-SH, IER5 shRNA Plasmid (m): sc-146146-SH, IER5 shRNA (h) Lentiviral Particles: sc-88172-V and IER5 shRNA (m) Lentiviral Particles: sc-146146-V.

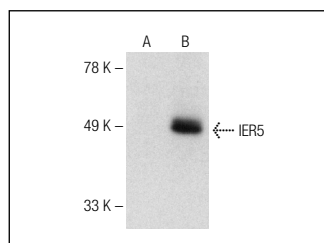
Molecular Weight of IER5: 34 kDa.

Positive Controls: IER5 (h): 293T Lysate: sc-111703.

## 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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

## DATA



IER5 (C-14): sc-162955. Western blot analysis of IER5 expression in non-transfected: sc-117752 (A) and human IER5 transfected: sc-111703 (B) 293T whole cell lysates.

## RESEARCH USE

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