SANTA CRUZ BIOTECHNOLOGY, INC.

CIRP (G-13): sc-161012



BACKGROUND

CIRP, also known as CIRBP (cold inducible RNA binding protein) or A18HNRNP, is a 172 amino acid protein that localizes to the nucleus and contains one RRM (RNA recognition motif) domain. Expressed ubiquitously, CIRP is thought to play an essential role in the suppression of cellular proliferation in response to UV irradiation or extreme cold. Human CIRP, which may be involved in the pathogenesis of endometrial carcinoma, shares 95% sequence identity with its mouse counterpart, suggesting a conserved role between species. The gene encoding CIRP maps to human chromosome 19, which is the genetic home for a number of immunoglobulin superfamily members, including the killer cell and leukocyte Ig-like receptors, a number of ICAMs, the CEACAM and PSG family, and Fc receptors (FcRs).

REFERENCES

- 1. Nishiyama, H., et al. 1997. Cloning and characterization of human CIRP (cold-inducible RNA-binding protein) cDNA and chromosomal assignment of the gene. Gene 204: 115-120.
- 2. Sheikh, M.S., et al. 1997. Identification of several human homologs of hamster DNA damage-inducible transcripts. Cloning and characterization of a novel UV-inducible cDNA that codes for a putative RNA-binding protein. J. Biol. Chem. 272: 26720-26726.
- 3. Nishiyama, H., et al. 1997. A glycine-rich RNA-binding protein mediating cold-inducible suppression of mammalian cell growth. J. Cell Biol. 137: 899-908
- 4. Nishiyama, H., et al. 1998. Decreased expression of cold-inducible RNAbinding protein (CIRP) in male germ cells at elevated temperature. Am. J. Pathol. 152: 289-296.
- 5. Online Mendelian Inheritance in Man, OMIM[™]. 1998. Johns Hopkins University, Baltimore, MD. MIM Number: 602649. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
- 6. Fujita, J. 1999. Cold shock response in mammalian cells. J. Mol. Microbiol. Biotechnol. 1: 243-255.
- 7. Hamid, A.A., et al. 2003. Expression of cold-inducible RNA-binding protein in the normal endometrium, endometrial hyperplasia, and endometrial carcinoma. Int. J. Gynecol. Pathol. 22: 240-247.
- 8. Wellmann, S., et al. 2004. Oxygen-regulated expression of the RNA-binding proteins RBM3 and CIRP by a HIF-1-independent mechanism. J. Cell Sci. 117: 1785-1794.
- 9. De Leeuw, F., et al. 2007. The cold-inducible RNA-binding protein migrates from the nucleus to cytoplasmic stress granules by a methylation-dependent mechanism and acts as a translational repressor. Exp. Cell Res. 313: 4130-4144.

CHROMOSOMAL LOCATION

Genetic locus: CIRBP (human) mapping to 19p13.3; Cirbp (mouse) mapping to 10 C1.

RESEARCH USE

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

SOURCE

CIRP (G-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CIRP of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-161012 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

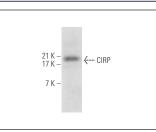
CIRP (G-13) is recommended for detection of CIRP of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

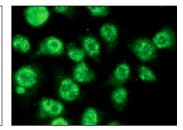
Suitable for use as control antibody for CIRP siRNA (h): sc-97329, CIRP siRNA (m): sc-142348, CIRP shRNA Plasmid (h): sc-97329-SH, CIRP shRNA Plasmid (m): sc-142348-SH, CIRP shRNA (h) Lentiviral Particles: sc-97329-V and CIRP shRNA (m) Lentiviral Particles: sc-142348-V.

Molecular Weight of CIRP: 18 kDa.

Positive Controls: Jurkat nuclear extract: sc-2132, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

DATA





CIRP (G-13): sc-161012. Western blot analysis of CIRP expression in Jurkat nuclear extract

CIRP (G-13): sc-161012. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear staining

STORAGE

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

MONOS Satisfation Guaranteed

Try CIRP (1C9): sc-293325, our highly recommended

monoclonal alternative to CIRP (G-13).