

IRP-1 (h): 293 Lysate: sc-113248

BACKGROUND

Iron metabolism is essential for sustaining mammalian homeostasis. Iron uptake and distribution is a highly regulated process in mammalian cells that is monitored by two iron sensing proteins; iron regulatory protein-1 and -2 (IRP-1 and -2), also known as iron responsive element-binding protein-1 and -2 (IRE-BP-1 and -2) or aconitase 1 and 2. IRP-1 and IRP-2 are important soluble regulatory factors that mediate iron uptake and storage in mammalian cells. They are capable of either repressing translation or enhancing mRNA stability by associating with stem-loop motifs known as iron-responsive elements (IREs). IRPs respond to stress mediators, iron concentration and signaling factors, including nitrogen monoxide, cytokines and hydrogen peroxide.

REFERENCES

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4. Hirling, H., Emery-Goodman, A., Thompson, N., Neupert, B., Seiser, C. and Kuhn, L.C. 1992. Expression of active iron regulatory factor from a full-length human cDNA by *in vitro* transcription/translation. *Nucleic Acids Res.* 20: 33-39.
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6. Online Mendelian Inheritance in Man, OMIM™. 2008. Johns Hopkins University, Baltimore, MD. MIM Number: 100880. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
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CHROMOSOMAL LOCATION

Genetic locus: ACO1 (human) mapping to 9p21.1.

PRODUCT

IRP-1 (h): 293 Lysate represents a lysate of human IRP-1 transfected 293 cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

IRP-1 (h): 293 Lysate is suitable as a Western Blotting positive control for human reactive IRP-1 antibodies. Recommended use: 10-20 µl per lane.

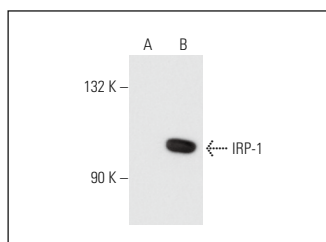
Control 293 Lysate: sc-110760 is available as a Western Blotting negative control lysate derived from non-transfected 293 cells.

IRP-1 (E-12): sc-166022 is recommended as a positive control antibody for Western Blot analysis of enhanced human IRP-1 expression in IRP-1 transfected 293 cells (starting dilution 1:100, dilution range 1:100-1:1,000).

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended:
1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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.

DATA



IRP-1 (E-12): sc-166022. Western blot analysis of IRP-1 expression in non-transfected: sc-110760 (A) and human IRP-1 transfected: sc-113248 (B) 293 whole cell lysates.

RESEARCH USE

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