

HERPUD2 (m): 293T Lysate: sc-120757

BACKGROUND

The endoplasmic reticulum (ER) stress response is triggered by the accumulation of unfolded proteins within the ER and is characterized by three events: the inhibition of translation (to prevent further protein accumulation), the up-regulated expression of polypeptide-folding proteins (known as the unfolded protein response or UPR) and the degradation of misfolded proteins by the ER-associated protein degradation (ERAD) system. Members of the homocysteine-inducible and ER stress-inducible ubiquitin-like domain families are components of the ERAD system and, via their ubiquitin-like domain, are thought to be involved in the destruction of misfolded proteins. HERPUD2 (homocysteine-responsive endoplasmic reticulum-resident ubiquitin-like domain member 2) is a 406 amino acid single-pass membrane protein containing one N-terminal ubiquitin-like domain. HERPUD2 is thought to be involved in the unfolded protein response (UPR) pathway.

REFERENCES

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3. Kokame, K., et al. 2001. Identification of ERSE-II, a new *cis*-acting element responsible for the ATF6-dependent mammalian unfolded protein response. *J. Biol. Chem.* 276: 9199-9205.
4. Sai, X., et al. 2002. Endoplasmic reticulum stress-inducible protein, Herp, enhances presenilin-mediated generation of amyloid β -protein. *J. Biol. Chem.* 277: 12915-12920.
5. Schulze, A., et al. 2005. The ubiquitin-domain protein HERP forms a complex with components of the endoplasmic reticulum associated degradation pathway. *J. Mol. Biol.* 354: 1021-1027.
6. Liang, G., et al. 2006. Luman/CREB3 induces transcription of the endoplasmic reticulum (ER) stress response protein Herp through an ER stress response element. *Mol. Cell. Biol.* 26: 7999-8010.
7. Tuvia, S., et al. 2007. The ubiquitin E3 ligase POSH regulates calcium homeostasis through spatial control of Herp. *J. Cell Biol.* 177: 51-61.
8. Okuda-Shimizu, Y. and Hendershot, L.M. 2007. Characterization of an ERAD pathway for nonglycosylated BiP substrates, which require Herp. *Mol. Cell* 28: 544-554.
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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.

CHROMOSOMAL LOCATION

Genetic locus: Herpud2 (mouse) mapping to 9 A4.

PRODUCT

HERPUD2 (m): 293T Lysate represents a lysate of mouse HERPUD2 transfected 293T cells and is provided as 100 μ g protein in 200 μ l SDS-PAGE buffer.

APPLICATIONS

HERPUD2 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive HERPUD2 antibodies. Recommended use: 10-20 μ l per lane.

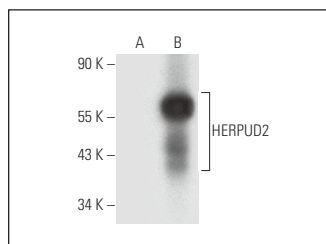
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

HERPUD2 (D-12): sc-398583 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse HERPUD2 expression in HERPUD2 transfected 293T 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-IgG κ BP-HRP: sc-516102 or m-IgG κ 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



HERPUD2 (D-12): sc-398583. Western blot analysis of HERPUD2 expression in non-transfected: sc-117752 (A) and mouse HERPUD2 transfected: sc-120757 (B) 293T whole cell lysates.

RESEARCH USE

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