

HERP (H-59): sc-98669

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. HERP, also known as HERPUD1 (homocysteine-inducible, endoplasmic reticulum stress-inducible, ubiquitin-like domain member 1), SUP or MIF1, is a 391 amino acid multi-pass membrane protein that localizes to the ER and contains one N-terminal ubiquitin-like domain. Widely expressed with highest expression in the brain, HERP is a component of the ERAD system and, via its ubiquitin-like domain, is thought to be involved in the destruction of misfolded proteins. Three isoforms of HERP exist due to alternative splicing events.

REFERENCES

1. van Laar, T., et al. 2000. The novel MMS-inducible gene Mif1/KIAA0025 is a target of the unfolded protein response pathway. *FEBS Lett.* 469: 123-131.
2. Kokame, K., et al. 2000. HERP, a new ubiquitin-like membrane protein induced by endoplasmic reticulum stress. *J. Biol. Chem.* 275: 32846-32853.

CHROMOSOMAL LOCATION

Genetic locus: HERPUD1 (human) mapping to 16q13; Herpud1 (mouse) mapping to 8 C5.

SOURCE

HERP (H-59) is a rabbit polyclonal antibody raised against amino acids 125-183 mapping within an internal region of HERP 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.

APPLICATIONS

HERP (H-59) is recommended for detection of HERP 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).

HERP (H-59) is also recommended for detection of HERP in additional species, including canine and bovine.

Suitable for use as control antibody for HERP siRNA (h): sc-75245, HERP siRNA (m): sc-75246, HERP shRNA Plasmid (h): sc-75245-SH, HERP shRNA Plasmid (m): sc-75246-SH, HERP shRNA (h) Lentiviral Particles: sc-75245-V and HERP shRNA (m) Lentiviral Particles: sc-75246-V.

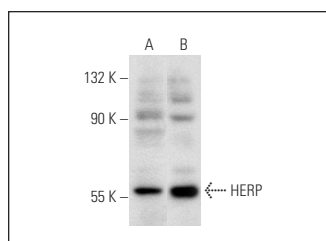
Molecular Weight of HERP: 54 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, SK-N-MC cell lysate: sc-2237 or HERP (h3): 293T Lysate: sc-171055.

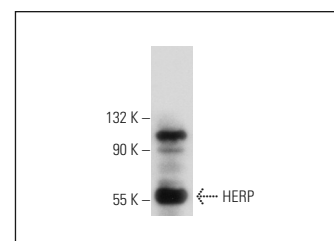
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



HERP (H-59): sc-98669. Western blot analysis of HERP expression in non-transfected: sc-117752 (A) and human HERP transfected: sc-171055 (B) 293T whole cell lysates.



HERP (H-59): sc-98669. Western blot analysis of HERP expression in SK-N-MC whole cell lysate.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

Try **HERP (19-Y): sc-100721**, our highly recommended monoclonal alternative to HERP (H-59).