**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**


**CHROMOSOMAL LOCATION**

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

**SOURCE**

HERP (19-Y) is a mouse monoclonal antibody raised against recombinant protein corresponding to amino acids 74-180 of HERP of human origin.

**PRODUCT**

Each vial contains 100 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

**APPLICATIONS**

HERP (19-Y) 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), immunohistochemistry (including paraffin-embedded sections) (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 HERP siRNA (h): sc-75245, HERP siRNA (m): sc-75246, HERP shRNA Plasmid (h): sc-75245-SH, HERP shRNA Plasmid (m): sc-75245-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 or EOC 20 whole cell lysate: sc-364187.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BHRP: sc-516102 or m-IgGκ BHRP (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. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

**DATA**

![HERP Western Blot Analysis](https://www.scbt.com/images/herp_western.png)

**SELECT PRODUCT CITATIONS**


**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 for detailed protocols and support products.