

## Product Information

### Anti-Herp (C-terminal)

produced in rabbit, affinity isolated antibody

Catalog Number **H6915**

#### Product Description

Anti-Herp (C-terminal) is produced in rabbit using as immunogen a synthetic peptide corresponding to amino acids 353-369 of human Herp (GeneID: 9709), conjugated to KLH. The corresponding sequence differs by 3 amino acids in mouse and 4 amino acids in rat. The antibody is affinity-purified using the immunizing peptide immobilized on agarose.

Anti-Herp (C-terminal) recognizes human Herp. The antibody may be used in various immunochemical techniques including immunoblotting (~ 54 kDa) and immunoprecipitation. Detection of the Herp band by immunoblotting is specifically inhibited by the immunizing peptide.

Herp (homocysteine-inducible, endoplasmic reticulum stress-inducible, ubiquitin-like domain member 1, also known as HERPUD1) is an ER-resident membrane protein involved in ubiquitin dependent ER stress-associated protein degradation (ERAD) during unfolded protein response (UPR).<sup>1-3</sup> Quality control in the ER is regulated by productive folding and ERAD mechanisms. During ERAD, misfolded proteins accumulated in the ER are transferred to the cytosol, where they are destroyed by the ubiquitin-proteasome system.<sup>4</sup> Accelerated refolding and degradation of unfolded proteins are induced in response to ER stress by the UPR transcriptional program. Herp expression is strongly induced by the UPR.<sup>5</sup> Herp contains an ER stress response element in the promotor region of the gene and a ubiquitin-like domain at the N-terminus of the protein.<sup>1,6</sup> Herp forms a complex with components of the ERAD pathway. This is a high molecular mass complex associated with the ER membrane, which is composed of Herp, the ubiquitin protein ligase Hrd1 and the retro-translocation proteins p97, Derlin-1, and VIMP.<sup>7</sup>

#### Reagent

Supplied as a solution in 0.01 M phosphate buffered saline pH 7.4, containing 15 mM sodium azide.

Antibody concentration: ~ 1.0 mg/mL

#### Precautions and Disclaimer

This product is for R&D use only, not for drug, household, or other uses. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.

#### Storage/Stability

For continuous use, store at 2-8 °C for up to one month. For extended storage freeze in working aliquots. Repeated freezing and thawing is not recommended. If slight turbidity occurs upon prolonged storage, clarify the solution by centrifugation before use. Working dilution samples should be discarded if not used within 12 hours.

#### Product Profile

Immunoblotting: a working antibody concentration of 1-2 µg/mL is recommended using a whole extract of HEK-293T cells expressing human Herp.

Immunoprecipitation: a working antibody amount of 2-4 µg is recommended using lysates of HEK-293T cells expressing human Herp.

**Note**: In order to obtain the best results in various techniques and preparations we recommend determining optimal working concentration by titration.

#### References

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4. Meusser, B., et al., *Nat. Cell Biol.*, **7**, 766-772 (2005).
5. Ma, Y., and Hendershot, L.M., *J. Biol. Chem.*, **279**, 13792-13799 (2004).
6. Kokame, K., et al., *J. Biol. Chem.*, **276**, 9199-9205 (2001).
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