

HSPE1 Antibody (N-term) Blocking Peptide
Synthetic peptide
Catalog # BP2870a**Specification**

HSPE1 Antibody (N-term) Blocking Peptide - Product InformationPrimary Accession [P61604](#)**HSPE1 Antibody (N-term) Blocking Peptide - Additional Information**

Gene ID 3336

Other Names

10 kDa heat shock protein, mitochondrial, Hsp10, 10 kDa chaperonin, Chaperonin 10, CPN10, Early-pregnancy factor, EPF, HSPE1

Target/Specificity

The synthetic peptide sequence used to generate the antibody [AP2870a](/products/AP2870a) was selected from the N-term region of human HSPE1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

HSPE1 Antibody (N-term) Blocking Peptide - Protein Information

Name HSPE1

Function

Co-chaperonin implicated in mitochondrial protein import and macromolecular assembly. Together with Hsp60, facilitates the correct folding of imported proteins. May also prevent misfolding and promote the refolding and proper assembly of unfolded polypeptides generated under stress conditions in the mitochondrial matrix (PubMed:[7912672](http://www.uniprot.org/citations/7912672), PubMed:[1346131](http://www.uniprot.org/citations/1346131), PubMed:[11422376](http://www.uniprot.org/citations/11422376)). The functional units of these chaperonins consist of heptameric rings of the large subunit Hsp60, which function as a back-to-back double ring. In a cyclic reaction, Hsp60 ring complexes bind one unfolded substrate protein per ring, followed by the binding of ATP and association with 2 heptameric rings of the co-chaperonin Hsp10. This leads to sequestration of the substrate protein

in the inner cavity of Hsp60 where, for a certain period of time, it can fold undisturbed by other cell components. Synchronous hydrolysis of ATP in all Hsp60 subunits results in the dissociation of the chaperonin rings and the release of ADP and the folded substrate protein (Probable).

Cellular Location

Mitochondrion matrix.

HSPE1 Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

HSPE1 Antibody (N-term) Blocking Peptide - Images**HSPE1 Antibody (N-term) Blocking Peptide - Background**

HSPE1 is a major heat shock protein which functions as a chaperonin. Its structure consists of a heptameric ring which binds to another heat shock protein in order to form a symmetric, functional heterodimer which enhances protein folding in an ATP-dependent manner.

HSPE1 Antibody (N-term) Blocking Peptide - References

Chen J.J., McNealy D.J., Dalal S. Biochim. Biophys. Acta 1219:189-190(1994) Hansen J.J., Bross P., Westergaard M. Hum. Genet. 112:71-77(2003) Cavanagh A.C., Morton H. Eur. J. Biochem. 222:551-560(1994)