

HSPE1 / HSP10 / Chaperonin 10 Antibody
Rabbit Polyclonal Antibody
Catalog # ALS14992**Specification**

HSPE1 / HSP10 / Chaperonin 10 Antibody - Product Information

Application	WB, IHC
Primary Accession	P61604
Reactivity	Human, Mouse, Rat, Rabbit, Pig, Sheep, Xenopus, Bovine, Guinea Pig, Dog
Host	Rabbit
Clonality	Polyclonal
Calculated MW	11kDa KDa

HSPE1 / HSP10 / Chaperonin 10 Antibody - 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

Detects ~10 kD protein.

Reconstitution & Storage

Long term: -20°C; Short term: +4°C; Avoid freeze-thaw cycles.

Precautions

HSPE1 / HSP10 / Chaperonin 10 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

HSPE1 / HSP10 / Chaperonin 10 Antibody - 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:[11422376](http://www.uniprot.org/citations/11422376), PubMed:[1346131](http://www.uniprot.org/citations/1346131), PubMed:[7912672](http://www.uniprot.org/citations/7912672)). 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

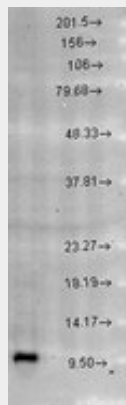
Mitochondrion matrix.

HSPE1 / HSP10 / Chaperonin 10 Antibody - Protocols

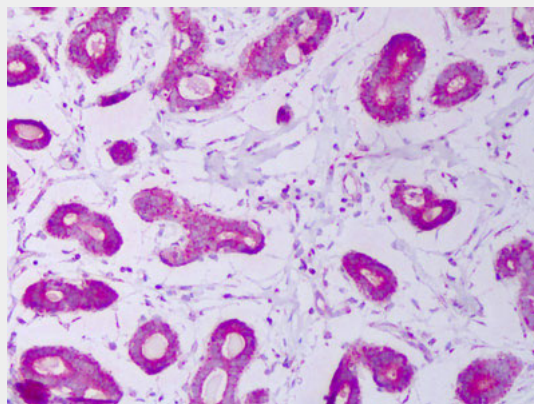
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

HSPE1 / HSP10 / Chaperonin 10 Antibody - Images



Cpn10, Rat brain extract.



Anti-HSPE1 / CPN10 antibody IHC of human breast.

HSPE1 / HSP10 / Chaperonin 10 Antibody - Background

Eukaryotic CPN10 homolog which is essential for mitochondrial protein biogenesis, together with

CPN60. Binds to CPN60 in the presence of Mg-ATP and suppresses the ATPase activity of the latter.

HSPE1 / HSP10 / Chaperonin 10 Antibody - References

- Monzini N., et al. *Biochim. Biophys. Acta* 1218:478-480(1994).
Chen J.J., et al. *Biochim. Biophys. Acta* 1219:189-190(1994).
Hansen J.J., et al. *Hum. Genet.* 112:71-77(2003).
Ota T., et al. *Nat. Genet.* 36:40-45(2004).
Ebert L., et al. Submitted (MAY-2004) to the EMBL/GenBank/DDBJ databases.