

HSPE1 Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP51272**Specification****HSPE1 Antibody - Product Information**

Application	WB
Primary Accession	P61604
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	10 KDa
Antigen Region	41 - 100

HSPE1 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

KLH-conjugated synthetic peptide encompassing a sequence within the center region of human HSPE1. The exact sequence is proprietary.

Dilution

WB~~ 1:1000

Format

0.01M PBS, pH 7.2, 0.09% (W/V) Sodium azide, Glycerol 50%

Storage

Store at -20 °C. Stable for 12 months from date of receipt

HSPE1 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, PubMed:1346131, PubMed: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

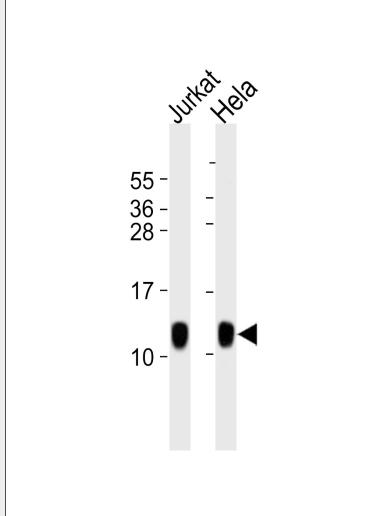
Mitochondrion matrix.

HSPE1 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 Antibody - Images



All lanes : Anti-HSPE1 Antibody at 1:1000 dilution Lane 1: Jurkat whole cell lysates Lane 2: HeLa whole cell lysates Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution Predicted band size : 11 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

HSPE1 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 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.