

HSPD1 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP2859c**Specification****HSPD1 Antibody (Center) Blocking Peptide -
Product Information**Primary Accession [P10809](#)**HSPD1 Antibody (Center) Blocking Peptide -
Additional Information****Gene ID** 3329**Other Names**

60 kDa heat shock protein, mitochondrial,
60 kDa chaperonin, Chaperonin 60, CPN60,
Heat shock protein 60, HSP-60, Hsp60,
HuCHA60, Mitochondrial matrix protein P1,
P60 lymphocyte protein, HSPD1, HSP60

Target/Specificity

The synthetic peptide sequence used to
generate the antibody AP2859c
was selected from the Center region of
human HSPD1. 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.

**HSPD1 Antibody (Center) Blocking Peptide -
Protein Information****HSPD1 Antibody (Center) Blocking Peptide
- Background**

HSPD1 is a member of the chaperonin family.
This protein may function as a signaling
molecule in the innate immune system. The
protein is essential for the folding and
assembly of newly imported proteins in the
mitochondria. The protein is adjacent to a
related family member and the region between
the 2 genes functions as a bidirectional
promoter.

**HSPD1 Antibody (Center) Blocking Peptide
- References**

Venner T.J., Singh B., Gupta R.S. DNA Cell Biol.
9:545-552(1990) Hansen J.J., Bross P.,
Westergaard M., Nielsen M.N., Eiberg H., Hum.
Genet. 112:71-77(2003) Rasmussen R.K., Ji H.,
Eddes J.S., Moritz R.L., Electrophoresis
18:588-598(1997) Aboulaich N., Vainonen J.P.,
Stralfors P., Vener A.V. Biochem. J.
383:237-248(2004)

Name HSPD1

Synonyms HSP60

Function

Chaperonin implicated in mitochondrial protein import and macromolecular assembly. Together with Hsp10, 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:1346131, PubMed: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.

**HSPD1 Antibody (Center) Blocking Peptide
- Protocols**

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

- [Blocking Peptides](#)