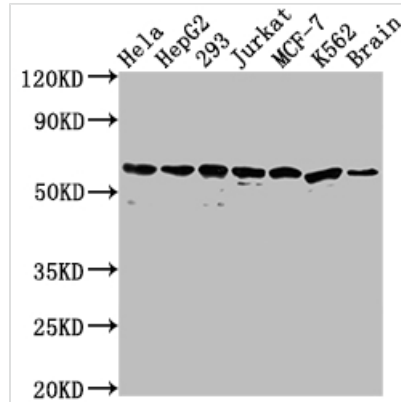




# HSPD1 Antibody

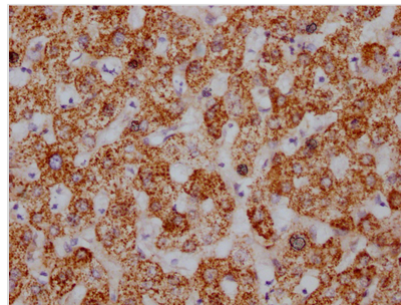
<b>Product Code</b>	CSB-RA953395A0HU
<b>Storage</b>	Upon receipt, store at -20°C or -80°C. Avoid repeated freeze.
<b>Uniprot No.</b>	P10809
<b>Immunogen</b>	A synthesized peptide derived from human Hsp60
<b>Species Reactivity</b>	Human, Mouse
<b>Tested Applications</b>	ELISA, WB, IHC, IP; Recommended dilution: WB:1:500-1:5000, IHC:1:50-1:200, IP:1:200-1:1000
<b>Relevance</b>	<p>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).</p>
<b>Form</b>	Liquid
<b>Conjugate</b>	Non-conjugated
<b>Storage Buffer</b>	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
<b>Purification Method</b>	Affinity-chromatography
<b>Isotype</b>	Rabbit IgG
<b>Clonality</b>	Monoclonal
<b>Product Type</b>	Recombinant Antibody
<b>Immunogen Species</b>	Homo sapiens (Human)
<b>Research Area</b>	Isotype/Loading Controls; Tags & Cell Markers; Signal transduction
<b>Gene Names</b>	HSPD1
<b>Accession NO.</b>	3D8

Image

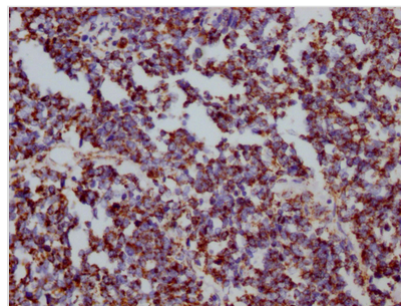


**Western Blot**

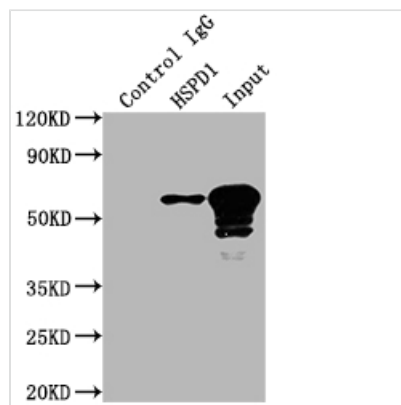
Positive WB detected in: HeLa whole cell lysate, HepG2 whole cell lysate, 293 whole cell lysate, Jurkat whole cell lysate, MCF-7 whole cell lysate, K562 whole cell lysate, Mouse brain tissue  
 All lanes: HSPD1 antibody at 1:2000  
 Secondary  
 Goat polyclonal to rabbit IgG at 1/50000 dilution  
 Predicted band size: 62, 18 kDa  
 Observed band size: 60 kDa



IHC image of CSB-RA953395A0HU diluted at 1:100 and staining in paraffin-embedded human liver tissue performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.



IHC image of CSB-RA953395A0HU diluted at 1:100 and staining in paraffin-embedded human liver cancer performed on a Leica Bond™ system. After dewaxing and hydration, antigen retrieval was mediated by high pressure in a citrate buffer (pH 6.0). Section was blocked with 10% normal goat serum 30min at RT. Then primary antibody (1% BSA) was incubated at 4°C overnight. The primary is detected by a Goat anti-rabbit IgG polymer labeled by HRP and visualized using 0.05% DAB.



**Immunoprecipitating HSPD1 in HepG2 whole cell lysate**

Lane 1: Rabbit control IgG instead of CSB-RA953395A0HU in HepG2 whole cell lysate. For western blotting, a HRP-conjugated Protein G antibody was used as the secondary antibody (1/2000)  
 Lane 2: CSB-RA953395A0HU(3µg)+ HepG2 whole cell lysate(500µg)  
 Lane 3: HepG2 whole cell lysate (10µg)

**Description**

The first step in the preparation of recombinant HSPD1 antibody is to obtain the HSPD1 antibody gene. The heavy and light chain genes of the antibody were constructed into a plasma vector and then transfected into suspended mammalian cells transiently. After expression verification, cell supernatant was



collected in expanded culture and purified recombinant HSPD1 antibody was obtained using affinity-chromatography. This recombinant HSPD1 antibody has been validated for the detection of HSPD1 protein from Human, Mouse in the ELISA, WB, IHC, IP.

HSPD1, also called HSP60, is essential for protein homeostasis by mediating protein folding and assembly. Apart from its chaperone activities, HSP60 also shows an immunoregulatory role in the case of various infections and triggers an impactful pro-inflammatory response in the peripheral immune system. Upregulation of HSP60 has been found in various human malignancies. HSP60 shows anti-apoptotic activities and promotes tumor formation, proliferation, progression, invasion, and metastasis. It is related to therapeutic resistance and poor survival.