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# Certificate of Analysis and Data Sheet Rabbit anti-HSP60 antibody

<b>Catalog No.</b> 130-10057	<b>Isotype:</b> Rabbit Ig G	<b>Species:</b> Human	<b>Accession No:</b> P10809
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## Description

HSP60 implicated in mitochondrial protein import and macromolecular assembly, facilitate the correct folding of imported proteins. HSP60 may also prevent misfolding and promote the refolding and proper assembly of unfolded polypeptides generated under stress conditions in the mitochondrial matrix. Defects in HSP60 are the cause of leukodystrophy hypomyelinating type 4 (HLD4); also called mitochondrial HSP60 chaperonopathy or MitCHAP-60 disease. HLD4 is a severe autosomal recessive hypomyelinating leukodystrophy. Clinically characterized by infantile-onset rotary nystagmus, progressive spastic paraplegia, neurologic regression, motor impairment, profound mental retardation. As well as influencing apoptosis, HSP60 changes in expression level have been shown to be useful new biomarkers for diagnostic and prognostic purposes.

## Applications

Table Summary of antibody applications and working conditions

Options Functions	YES	NO	Not determined	Recommended Work dilution or concentration
ELISA	*			1:64000 (at least detecting 16 ng/ml)
Western Blotting			*	
Enzyme Immunoassay(EIA)			*	
Immunohistology - paraffin			*	
Immunohistology - resin			*	
Immunoprecipitation			*	
Flow Cytometry			*	
Neutralization			*	

Note: Other applications are not tested yet. Optimal dilutions should be determined by each laboratory for each application.

**The products are furnished for LABORATORY RESEARCH USE ONLY.  
Not for diagnostic or therapeutic use.**



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### **Preparation**

Immunogen was synthetic peptide derived from human HSP60. This antibody was produced from a rabbit immunized with the immunogen. The IgG fraction was purified from rabbit serum by ammonium sulphate precipitation, and followed by Protein A/G affinity chromatography.

### **Binding Activity**

The antibody can specifically bind to its immunogen, and did not show any cross reactivity with unrelated antigens in ELISA. The specificity for binding to recombinant protein, cellular protein and native antigen is not defined. Cross reactivity with mouse and rat HSP60 was not tested yet.

### **Reconstitution**

Supplied as lyophilized and purified antibody originally containing PBS, without **Preservative Stabilizers**, liking Sodium Azide. *It final concentration is indicated in shipping vial.*

The antibody is stable for at least years from the data of receipt when stored at  $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$ . Reconstituted antibody (suggesting with sterile PBS) can also be aliquotted and stored frozen at  $-20^{\circ}\text{C}$  to  $-70^{\circ}\text{C}$  in a manual defrost freezer for months without detectable loss activity. Upon reconstitution, the antibody can also be stored over months at  $4^{\circ}\text{C}$ . **Please avoid freeze-thaw cycles.**

### **Storage**

Keep it at  $4^{\circ}\text{C}$  if intended for use within a month. Store at  $-20^{\circ}\text{C}$  if not be used over months. **Minimize freezing and thawing when use.**

### **Related products**

- 1 Mouse Anti-Human Heat Shock Protein 60 (cat# DS-MB-01442 )
- 2 Custom Human HSP60 ELISA Kit available on demand (cat# ELH-HSP60-001 )

### **Reference**

Korányi L, et al..(2004) The role of hsp60 and hsp70 kDa heat shock protein families in different types of diabetes mellitus. Orv Hetil. 29;145(9):467-72.

Tsan MF, Gao B. Cytokine function of heat shock proteins. Am J Physiol Cell Physiol. 2004 Apr;286(4):C739-44.

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