

# Immunotag™ HSP60 Polyclonal Antibody

| Antibody Specification |                                                                                                                                                                                                         |
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| Catalog No.            | ITT2256                                                                                                                                                                                                 |
| Product Description    | Immunotag™ HSP60 Polyclonal Antibody                                                                                                                                                                    |
| Size                   | 50 µg, 100 µg                                                                                                                                                                                           |
| Conjugation            | HRP, Biotin, FITC, Alexa Fluor® 350, Alexa Fluor® 405, Alexa Fluor® 488, Alexa Fluor® 555, Alexa Fluor® 594, Alexa Fluor® 647                                                                           |
| IMPORTANT NOTE         | This product is custom manufactured with a lead time of 3-4 weeks. Once in production, this item cannot be cancelled from an order and is not eligible for return.                                      |
| Target Protein         | HSP60                                                                                                                                                                                                   |
| Clonality              | Polyclonal                                                                                                                                                                                              |
| Storage/Stability      | -20°C/1 year                                                                                                                                                                                            |
| Application            | WB,IHC-p,IF,ELISA                                                                                                                                                                                       |
| Recommended Dilution   | Western Blot: 1/500 - 1/2000. Immunohistochemistry: 1/100 - 1/300. Immunofluorescence: 1/200 - 1/1000. ELISA: 1/10000. Not yet tested in other applications.                                            |
| Concentration          | 1 mg/ml                                                                                                                                                                                                 |
| Reactive Species       | Human,Mouse,Rat                                                                                                                                                                                         |
| Host Species           | Rabbit                                                                                                                                                                                                  |
| Immunogen              | Synthesized peptide derived from HSP60, at AA range: 480-560                                                                                                                                            |
| Specificity            | HSP60 Polyclonal Antibody detects endogenous levels of HSP60 protein.                                                                                                                                   |
| Purification           | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen                                                                                    |
| Form                   | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.                                                                                                                                 |
| Gene Name              | HSPD1                                                                                                                                                                                                   |
| Accession No.          | P10809 P63038 P63039                                                                                                                                                                                    |
| Alternate Names        | HSPD1; HSP60; 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 |

## Antibody Specification

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| Description                 | heat shock protein family D (Hsp60) member 1(HSPD1) Homo sapiens This gene encodes a member of the chaperonin family. The encoded mitochondrial protein may function as a signaling molecule in the innate immune system. This protein is essential for the folding and assembly of newly imported proteins in the mitochondria. This gene is adjacent to a related family member and the region between the 2 genes functions as a bidirectional promoter. Several pseudogenes have been associated with this gene. Two transcript variants encoding the same protein have been identified for this gene. Mutations associated with this gene cause autosomal recessive spastic paraplegia 13. [provided by RefSeq, Jun 2010],                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| Cell Pathway/<br>Category   | RNA degradation,Type I diabetes mellitus,                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| Protein<br>Expression       | Adipocyte,Adrenal gland,B-cell lymphoma,Brain,Cajal-Retzius                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| Subcellular<br>Localization | extracellular space,cytoplasm,mitochondrion,mitochondrial inner membrane,mitochondrial matrix,early endosome,peroxisomal matrix,rough endoplasmic reticulum,Golgi apparatus,cytosol,plasma membrane,clathrin                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| Protein Function            | disease:Defects in HSPD1 are a cause of spastic paraplegia autosomal dominant type 13 (SPG13) [MIM:605280]. Spastic paraplegia is a degenerative spinal cord disorder characterized by a slow, gradual, progressive weakness and spasticity of the lower limbs.,disease:Defects in HSPD1 are the cause of leukodystrophy hypomyelinating type 4 (HLD4) [MIM:612233]; 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. Death usually occurs within the first 2 decades of life.,function:Implicated in mitochondrial protein import and macromolecular assembly. May facilitate 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.,similarity:Belongs to the chaperonin (HSP60) family.,similarity:Belongs to the TCP-1 chaperonin family.,subunit:Interacts with HBV protein X and HTLV-1 protein p40tax., |
| Usage                       | For Research Use Only! Not for diagnostic or therapeutic procedures.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |