

Anti-Hsp60 (MOUSE) Monoclonal Antibody - 200-301-F60

Code: 200-301-F60

Size: 200 µg

Product Description: Anti-Hsp60 (MOUSE) Monoclonal Antibody - 200-301-F60

Concentration: 1mg/mL by UV absorbance at 280 nm

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Mouse
Gene Name	HSPD1
Species Reactivity	Human, Mouse, Rat, Bovine, Canine, Chicken, Drosophila, Guinea Pig, Hamster, Monkey, Pig, Rabbit, Sheep, Xenopus
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer	50% (v/v) Glycerol
Storage Condition	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Synonyms	CPN60, GROEL, HLD4, Hsp 60, Hsp65, HSPD1, HuCHA60, SPG 13, 60 kDa heat shock protein, mitochondrial, 60 kDa chaperonin, Chaperonin 60, CPN60, Heat shock protein 60, HSP-60, Hsp60, Mitochondrial matrix protein P1, P60 lymphocyte protein, PD1
Application Note	Anti-Hsp60 Antibody is suitable for WB, IP, ELISA, Flow Cytometry, and IHC. Expect a band approximately ~60kDa protein corresponding to the molecular mass of Hsp60 on SDS PAGE immunoblots. Specific conditions for reactivity should be optimized by the end user.
Background	<p>In both prokaryotic and eukaryotic cells, the misfolding and aggregation of proteins during biogenesis and under conditions of cellular stress are prevented by molecular chaperones. Members of the HSP60 family of heat shock proteins are some of the best characterized chaperones. Hsp60, also known as Cpn60 or GroEL, is an abundant protein synthesized constitutively in the cell that is induced to a higher concentration after brief cell shock. It is present in many species and exhibits a remarkable sequence homology among various counterparts in bacteria, plants, and mammals with more than half of the residues identical between bacterial and mammalian Hsp60. Whereas mammalian Hsp60 is localized within the mitochondria, plant Hsp60, or otherwise known as Rubisco-binding protein, is located in plant chloroplasts.</p> <p>It has been indicated that these proteins carry out a very important biological function due to the fact that Hsp60 is present in so many different species. The common characteristics of the Hsp60s from the divergent species are i) high abundance, ii) induction with environmental stress such as heat shock, iii) homo-oligomeric structures of either 7 or 14 subunits which reversibly dissociate in the presence of Mg²⁺ and ATP, iv) ATPase activity and v) a role in folding and assembly of oligomeric protein structures. These similarities are supported by recent studies where the single-ring human mitochondrial homolog, Hsp60 with its co-chaperonin, Hsp10 were expressed in a E. coli strain, engineered so that the groE operon is under strict regulatory control. This study has demonstrated that expression of Hsp60-Hsp10 was able to carry out all essential in vivo functions of GroEL and its co-chaperonin, GroES. Another important function of Hsp60 and Hsp10 is their protective functions against infection and cellular stress. Hsp60 has however been linked to a number of autoimmune diseases, as well as Alzheimer's, coronary artery diseases, MS, and diabetes.</p>
Purity And Specificity	Anti-Hsp60 Antibody was purified by Protein G chromatography. A BLAST analysis was used to suggest cross-reactivity with Hsp60 from Human, Mouse, Rat, Bovine, Canine, Chicken, Drosophila, Guinea Pig, Hamster, Monkey, Pig, Rabbit, Sheep, and Xenopus sources based on 100% homology with the immunizing sequence. Cross-reactivity with Hsp60 from other sources has not been determined. Heat Shock research.
ELISA	1:200
Immunohistochemistry	User Optimized
WESTERN BLOT	0.5µg/ml
IHC	User Optimized
FLOWCYTOMETRY	User Optimized
Expiration	Expiration date is one (1) year from date of opening.
Immunogen	Hsp60 Antibody was produced in mice by repeated immunizations raised against recombinant human Hsp60.
General Reference	<ol style="list-style-type: none"> Hartl, F.U. (1996) Nature 381: 571-579. Bukau, B. and Horwich, A.L. (1998) Cell 92: 351-366.

3. Hartl, F.U. and Hayer-Hartl, M. (2002) Science 295: 1852- 1858.
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12. Bason, C., et al (2003) Lancet 362(9400): 1971-1977.

Related Products

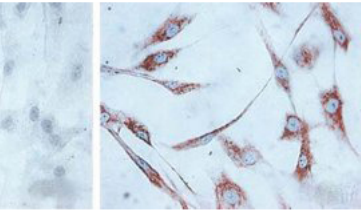
200-301-243	Anti-HSP27 (MOUSE) Monoclonal Antibody - 200-301-243
200-301-A28	Anti-Hsc70 (Hsp73) (MOUSE) Monoclonal Antibody - 200-301-A28
611-1302	Anti-RABBIT IgG (H&L) (GOAT) Antibody Peroxidase Conjugated - 611-1302
BSA-30	BOVINE SERUM ALBUMIN 30% Solution - BSA-30

Related Links

Images

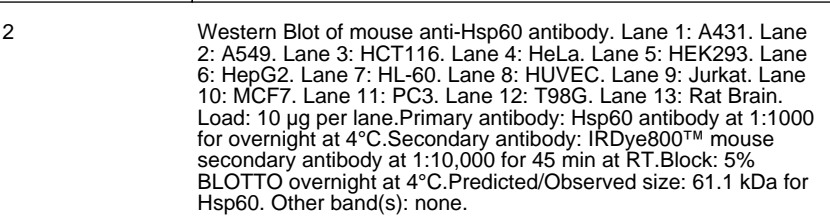
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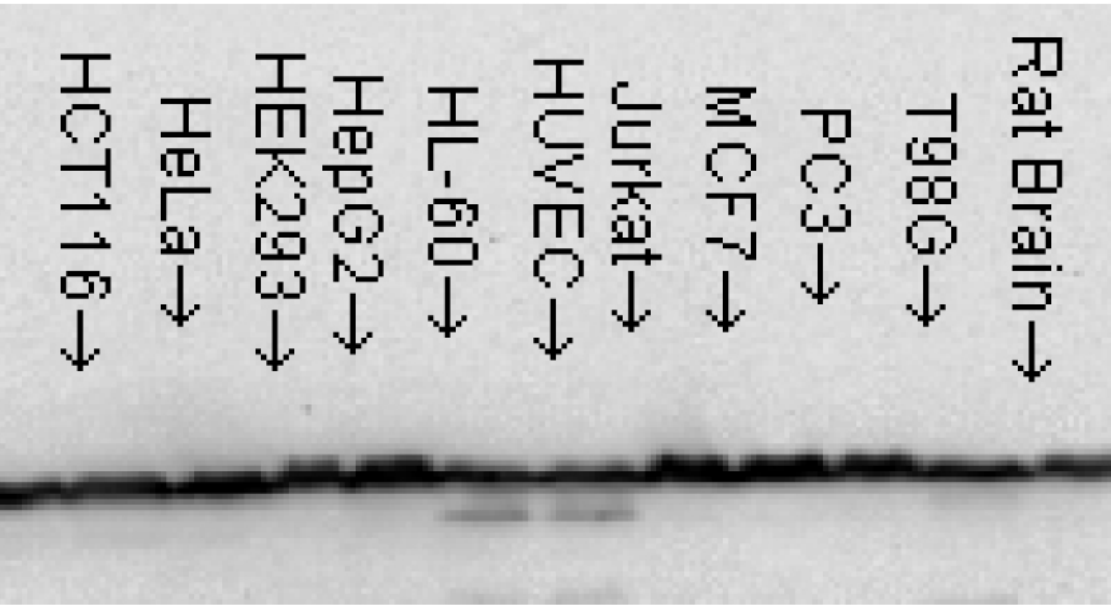
Immunohistochemistry of mouse anti-Hsp60 antibody. Tissue: human skin fibroblasts. Antigen retrieval: Left: control, Right: 24 hours after 7th passage of senescence. Primary Antibody: Hsp60 antibody at 1ug/ml for 1h at RT. Secondary antibody: Peroxidase mouse secondary at 1:10,000 for 45 min at RT. Localization: Nuclear. Staining: Hsp60 as brown signal.



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Western Blot of mouse anti-Hsp60 antibody. Lane 1: A431. Lane 2: A549. Lane 3: HCT116. Lane 4: HeLa. Lane 5: HEK293. Lane 6: HepG2. Lane 7: HL-60. Lane 8: HUVEC. Lane 9: Jurkat. Lane 10: MCF7. Lane 11: PC3. Lane 12: T98G. Lane 13: Rat Brain. Load: 10 µg per lane. Primary antibody: Hsp60 antibody at 1:1000 for overnight at 4°C. Secondary antibody: IRDye800™ mouse secondary antibody at 1:10,000 for 45 min at RT. Block: 5% BLOTTO overnight at 4°C. Predicted/Observed size: 61.1 kDa for Hsp60. Other band(s): none.





Disclaimer

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