

## Basic Information

<b>Product Name</b>	Anti-HSP60/HSPD1 Antibody (Clone#6G2)	
<b>Gene Name</b>	HSPD1	
<b>Source</b>	Mouse	
<b>Clonality</b>	Monoclonal	
<b>Isotype</b>	IgG1	
<b>Species Reactivity</b>	human, mouse, rat	
<b>Tested Application</b>	WB, IHC, FCM, ICC/IF	
<b>Contents</b>	500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.	
<b>Immunogen</b>	E.coli-derived human Hsp60/HSPD1 recombinant protein (Position: A260-Q496). Human Hsp60 shares 97% amino acid (aa) sequence identity with both mouse and rat Hsp60.	
<b>Concentration</b>	500 ug/ml	
<b>Purification</b>	protein G purified.	
<b>Observed MW</b>	61 kDa	
<b>Dilution Ratios</b>	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Flow Cytometry (Fixed): 1:50-200 (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

## Storage

12 months from date of receipt, -20°C as supplied.

## Background Information

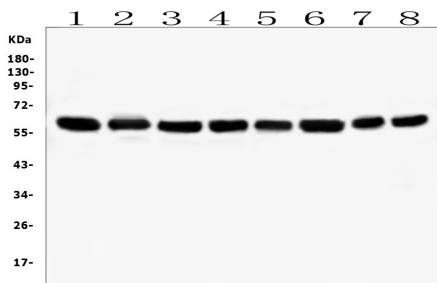
HSP60 is a member of the chaperonin class of protein factors, which include the Escherichia coli groEL protein and the Rubisco subunit-binding protein of chloroplasts. It acts as a costimulator of human regulatory CD4-positive/CD25 - positive T cells, which inhibit lymphoproliferation and IFNG and TNF secretion by CD4-positive and CD8-positive T cells. HSP60 enhances Treg activity via TLR2, leading to activation of an intracellular signaling cascade that included p38, as well as inhibition of ERK phosphorylation. Suppression of target T cells is mediated by both cell-to-cell contact and by secretion of TGFB and IL10, and it leads to downregulation of ERK, NFKB, and TBET expression. The self-molecule HSP60

can downregulate adaptive immune responses by upregulating Tregs through TLR2 signaling.

## Reference

Anti-HSP60/HSPD1 Antibody (Clone#6G2)被引用在1文献中。

## Selected Validation Data



Western blot analysis of HSP60/HSPD1 using anti-HSP60/HSPD1 antibody (M01280-3). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Caco-2 whole cell lysates,

Lane 2: human A549 whole cell lysates,

Lane 3: human THP-1 whole cell lysates,

Lane 4: human SW620 whole cell lysates,

Lane 5: human U-937 whole cell lysates,

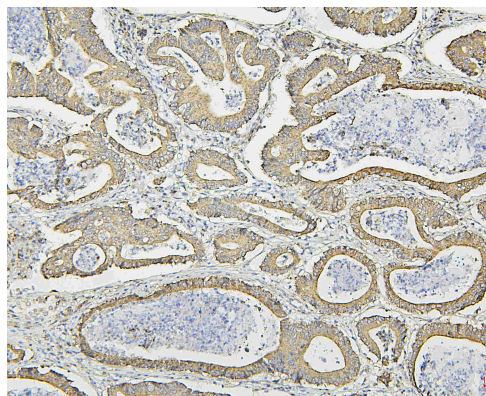
Lane 6: human HepG2 whole cell lysates,

Lane 7: rat RH35 whole cell lysates,

Lane 8: mouse RAW264.7 whole cell lysates.

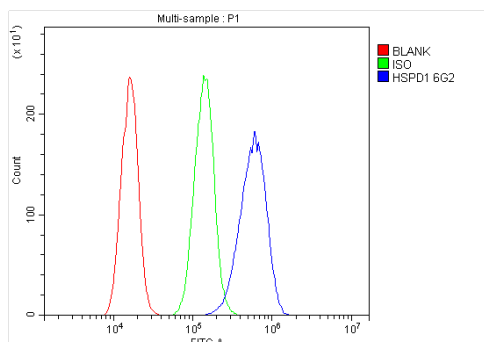
After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with mouse anti-HSP60/HSPD1 antigen affinity purified monoclonal antibody (M01280-3) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for HSP60/HSPD1 at approximately 61 kDa. The expected band size for HSP60/HSPD1 is at 61 kDa.



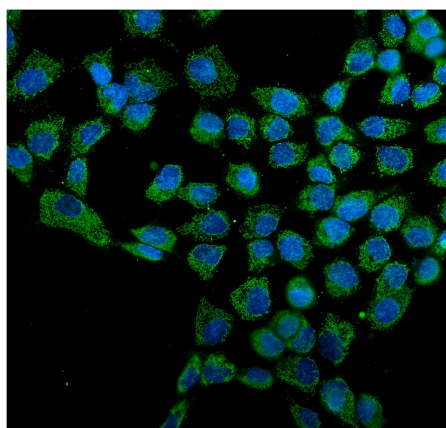
IHC analysis of HSP60/HSPD1 using anti-HSP60/HSPD1 antibody (M01280-3).

HSP60/HSPD1 was detected in a paraffin-embedded section of human intestinal cancer tissue. Biotinylated goat anti-mouse IgG was used as secondary antibody. The tissue section was incubated with mouse anti-HSP60/HSPD1 Antibody (M01280-3) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1021) with DAB (Catalog # AR1027) as the chromogen.



Flow Cytometry analysis of A431 cells using anti-HSP60/HSPD1 antibody (M01280-3).

Overlay histogram showing A431 cells stained with M01280-3 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-HSP60/HSPD1 Antibody (M01280-3) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.



ICC/IF analysis of HSP60/HSPD1 using anti-HSP60/HSPD1 antibody (M01280-3).

HSP60/HSPD1 was detected in an immunocytochemical section of A431 cells. The section was incubated with mouse anti-HSP60/HSPD1 Antibody (M01280-3) at a dilution of 1:100. Fluoro488-conjugated Anti-mouse IgG Secondary Antibody (green)(Catalog#BA1126) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).