

Basic Information

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| Product Name | Anti-HSP60/HSPD1 Antibody (Clone#6G2) | |
| Gene Name | HSPD1 | |
| Source | Mouse | |
| Clonality | Monoclonal | |
| Isotype | IgG1 | |
| Species Reactivity | human, mouse, rat | |
| Tested Application | WB, IHC, FCM, ICC/IF | |
| Contents | 500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol. | |
| Immunogen | 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. | |
| Concentration | 500 ug/ml | |
| Purification | protein G purified. | |
| Observed MW | 61 kDa | |
| Dilution Ratios | Western blot (WB): Immunohistochemistry (IHC): Immunocytochemistry/Immunofluorescence (ICC/IF): Flow Cytometry (Fixed): (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. | 1:500-2000 1:50-400 1:50-400 1:50-200 |

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。

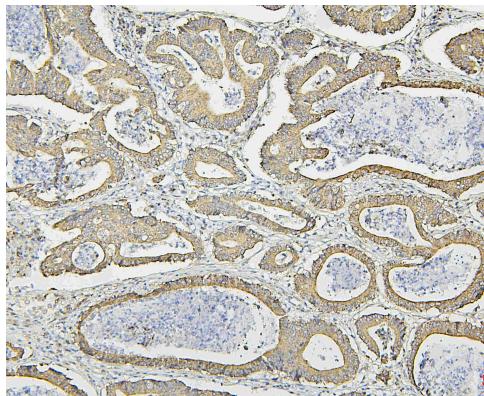
Selected Validation Data



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.

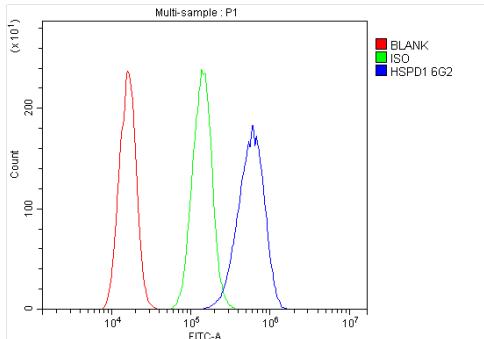
Lane 1: human Caco-2 whole cell lysates,
Lane 2: human A549 whole cell lysates,
Lane 3: human THP-1 whole cell lysates,
Lane 4: human SW620 whole cell lysates,
Lane 5: human U-937 whole cell lysates,
Lane 6: human HepG2 whole cell lysates,
Lane 7: rat RH35 whole cell lysates,
Lane 8: mouse RAW264.7 whole 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.



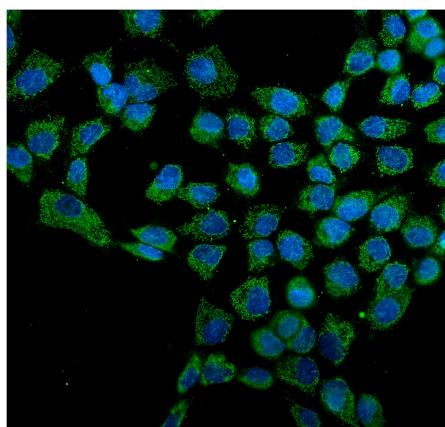
IHC analysis of HSP60/HSPD1 using anti-HSP60/HSPD1 antibody (M01280-3).

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 Strepavidin-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).