

Anti-HSP60/HSPD1 Antibody

Catalog Number: PA1106

About Hspd1

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.

Overview

Product Name	Anti-HSP60/HSPD1 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-HSP60/HSPD1 Antibody catalog # PA1106. Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat.
Application	Flow Cytometry, IF, IHC, ICC, WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg Thimerosal, 0.01mg NaN3.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P63039

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of rat HSP60, different from the related human sequence by one amino acid.
Predicted Reactive Species	Horse, Monkey, Rabbit
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P) and ICC.
Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized

Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat</p> <p>Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human, Mouse, Rat, By Heat</p> <p>Immunocytochemistry , 0.5-1ug/ml, Human, -</p> <p>Immunocytochemistry/Immunofluorescence, 5ug/ml, Human</p> <p>Flow Cytometry, 1-3ug/1x10⁶ cells, Human</p>

Anti-HSP60/HSPD1 Antibody (PA1106) Images

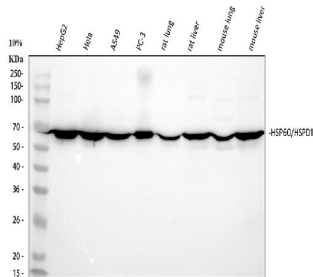


Figure 1. Western blot analysis of HSP60 using anti-HSP60 antibody (PA1106).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HepG2 whole cell lysates,

Lane 2: human Hela whole cell lysates,

Lane 3: human A549 whole cell lysates,

Lane 4: human PC-3 whole cell lysates.

Lane 5: rat lung tissue lysates,

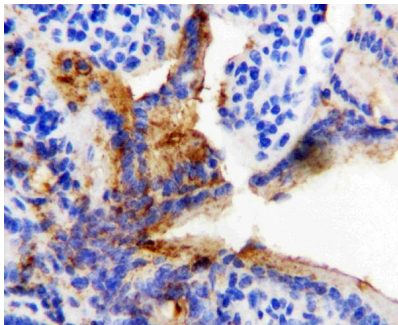
Lane 6: rat liver tissue lysates,

Lane 7: mouse lung tissue lysates,

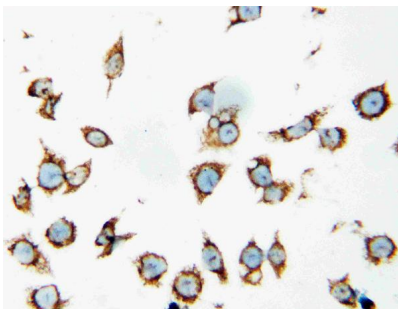
Lane 8: mouse liver tissue lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes.

Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-HSP60 antigen affinity purified polyclonal antibody (Catalog # PA1106) at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for HSP60 at approximately 61 kDa. The expected band size for HSP60 is at 61 kDa.



Anti-HSP60 antibody, PA1106, IHC(P)
IHC(P): Rat Intestine Tissue



Anti-HSP60 antibody, PA1106, ICC
ICC: SMMC Cell

6 Publications Citing This Product

1. PubMed ID: 24735884, Hepatic mitochondrial and ER stress induced by defective PPAR γ signaling in the pathogenesis of hepatic steatosis

2. PubMed ID: 27698781, Expression and location of HSP60 and HSP10 in the heart tissue of heat-stressed rats

3. PubMed ID: 24380831, Li L, Zhai S, Wang L, Si S, Wu H, Chang Z. Fish Shellfish Immunol. 2014 Feb;36(2):401-8. Doi: 10.1016/J.Fsi.2013.12.016. Epub 2013 Dec 29. Hsp60 In Caudal Fin Regeneration From Paramisgurnus Dabryanus: Molecular Cloning And Expression Characteriza...

Visit bosterbio.com/anti-hsp60-antibody-pa1106-boster.html to see all 6 publications.

Submit a product review to Biocompare.com

Submit a review of this product to Biocompare.com to receive a \$20 Amazon.com giftcard! Your reviews help your fellow scientists make the right decisions. Thank you for your contribution.



Anti-HSP60/HSPD1 Antibody