

## Anti-HSP60 Hspd1 Antibody (Monoclonal, LK1)

Catalog Number: MA1049

### About Hspd1

Heat shock 60KD protein (HSP60) is a member of the chaperonin class of protein factors and the nuclear encoded mitochondrial HSP60 is required for the assembly into oligomeric complexes of proteins imported into the mitochondrial matrix. HSP60 is linked head to head comprising approximately 17 kb and consist of 12 exons. HSP60 is a self-molecule, it can downregulate adaptive immune responses by upregulating Tregs innately through TLR2 signaling.

### Overview

|                      |                                                                                                                                                                                                       |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Name         | Anti-HSP60 Hspd1 Antibody (Monoclonal, LK1)                                                                                                                                                           |
| Reactive Species     | Chicken, Human, Mouse, Rat                                                                                                                                                                            |
| Description          | Boster Bio Anti-HSP60 Hspd1 Antibody (Monoclonal, LK1) catalog # MA1049. Tested in IHC, WB applications. This antibody reacts with Chicken, Human, Mouse, Rat.                                        |
| Application          | IHC, WB                                                                                                                                                                                               |
| Clonality            | Monoclonal LK1                                                                                                                                                                                        |
| Formulation          | Mouse ascites fluid, 1.2% sodium acetate, 2mg BSA, with 0.01mg NaN <sub>3</sub> as preservative.                                                                                                      |
| 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                 | Mouse                                                                                                                                                                                                 |
| Uniprot ID           | P63039                                                                                                                                                                                                |

### Technical Details

|                               |                                                                                                                                                                                |
|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Immunogen                     | Recombinant human heat shock protein 60 (HSP60)                                                                                                                                |
| Predicted Reactive Species    | Monkey                                                                                                                                                                         |
| Recommended Detection Systems | Boster recommends Enhanced Chemiluminescent Kit with anti-Mouse IgG (EK1001) for Western blot, and HRP Conjugated anti-Mouse IgG Super Vision Assay Kit (SV0001-1) for IHC(P). |
| Cross Reactivity              | No cross-reactivity with other proteins                                                                                                                                        |
| Isotype                       | Mouse IgG1                                                                                                                                                                     |
| Form                          | Lyophilized                                                                                                                                                                    |
| Concentration                 | Adding 1 ml of PBS buffer will yield a concentration of 100 ug/ml.                                                                                                             |
| Purification                  | Ascites                                                                                                                                                                        |

Suggested Dilutions

Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.

If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.

Some PubMed article(s) citing the expression level of this target are as follows:

Boster Bio's internal QC testing used:

Western blot, 2-4ug/ml, Human, chicken, rat

Immunohistochemistry (Paraffin-embedded Section), 4-8ug/ml, Human, chicken, mouse, rat, By Heat

## Anti-HSP60 Hspd1 Antibody (Monoclonal, LK1) (MA1049) Images

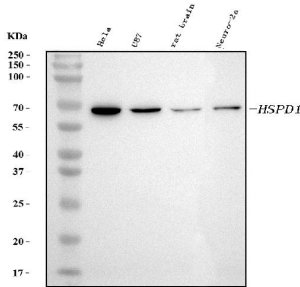


Figure 1. Western blot analysis of HSP60 using anti-HSP60 antibody (MA1049).

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 Hela whole cell lysates,

Lane 2: human U87 whole cell lysates,

Lane 3: rat brain tissue lysates,

Lane 4: mouse Neuro-2a whole cell 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 mouse anti-HSP60 antigen affinity purified monoclonal antibody (Catalog # MA1049) at 2 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-mouse 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 # EK1001) with Tanon 5200 system. A specific band was detected for HSP60 at approximately 65 kDa. The expected band size for HSP60 is at 65 kDa.

## 6 Publications Citing This Product

1. PubMed ID: 24735884, Hepatic mitochondrial and ER stress induced by defective PPAR $\gamma$  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...

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