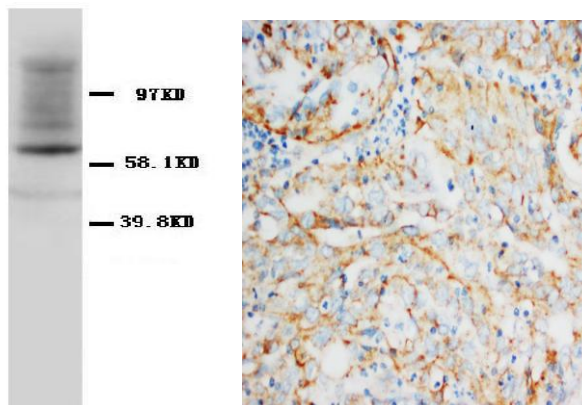




Polyclonal Anti-HSP60



Catalogue No. PA1106

Lot No. 08F01

Ig type: rabbit IgG

Size: 100µg/vial

Specificity

Human, mouse, rat.

No cross reactivity with other proteins.

Recommended application

Western blot

Immunohistochemistry(P)

Immunohistochemistry(F)

Immunocytochemistry

Immunogen

A synthetic peptide mapping at the middle region of human HSP60, identical to the related rat and mouse sequence.

Purity

Immunogen affinity purified.

Application

Western blot

At 0.5-1µg/ml with the appropriate system to detect HSP60 in cells and tissues.

Immunohistochemistry(P)

At 0.5-1µg/ml to detect HSP60 in formalin fixed and paraffin embedded tissues. Boiling the sections is required.

Immunohistochemistry(F)

Suitable

Immunocytochemistry

Suitable

Other applications have not been tested.

Optimal dilutions should be determined by end user.

Contents

Each vial contains 50% glycerol, 0.9mg NaCl, 0.2mg Na₂HPO₄.

Reconstitution

1.2% sodium acetate or neutral PBS. If 0.5ml of PBS is used, the antibody concentration will be 100µg/ml.

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for longer time.

To reorder contact us at:

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BACKGROUND

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 TGFβ and IL10, and it leads to downregulation of ERK, NFκB, and TBET expression. The self-molecule HSP60 can downregulate adaptive immune responses by upregulating Tregs through TLR2 signaling.

REFERENCE

1. Cheng, M. Y.; Hartl, F.-U.; Martin, J.; Pollock, R. A.; Kalousek, F.; Neupert, W.; Hallberg, E. M.; Hallberg, R. L.; Horwich, A. L. : Mitochondrial heat-shock protein hsp60 is essential for assembly of proteins imported into yeast mitochondria. *Nature* 337: 620-625, 1989.
2. Zanin-Zhorov, A.; Cahalon, L.; Tal, G.; Margalit, R.; Lider, O.; Cohen, I. R. : Heat shock protein 60 enhances CD4⁺CD25⁺ regulatory T cell function via innate TLR2 signaling. *J. Clin. Invest.* 116: 2022-2032, 2006.