

Monoclonal Anti- Heat shock protein 60, HSP60**Catalog#** BMA1023**Lot #** Check on the product label**Size** 100 µg**Isotype** IgG1**Clone #** H6-2**Host** Mouse**Reactivity**

Human, mouse, rat

Product Form Liquid**Purification** Protein A purified**Immunogen**

A synthetic peptide (conjugated with KLH) corresponding to the C-terminal of HSP60.

Recommend Application

Western Blot, WB (1:1000)

Immunohistochemistry, IHC-P (1:100)

Immunocytochemistry, ICC (1:100)

Other applications have not been tested.

The optimal dilutions should be determined by end user.

Storage Buffer

1*PBS (pH7.4), 0.2% BSA, 40% Glycerol and 0.05% Sodium Azide.

Storage Instruction

Store at 4°C after thawing (1 week). Aliquot and store at -20°C for long term (at least one year).

Avoid repeated freeze and thaw cycles.

Background

Heat shock protein 60 (HSP60) in the matrix of mitochondria is essential for the folding and assembly of newly imported

proteins. Hsp60 belongs to a class of structurally related chaperonins found in organelles of endosymbiotic origin and in the bacterial cytosol.¹ Members of the chaperonin class include the Escherichia coli, groEL protein and the Rubisco subunit-binding protein of chloroplasts.² In both prokaryotic and eukaryotic systems, synthesis of these proteins is induced in response to stresses, such as heat shock.³ Under normal physiological conditions, HSP60 is a 60 KD oligomer composed of monomers that form a complex arranged as two stacked heptameric rings.¹ HSP60 may be a very useful marker for patients with superficial bladder carcinoma and may be used for predicting disease progression. And low HSP60 expression levels may be usable as a prognostic marker to identify patients for whom local treatment would be insufficient.⁴ HSP60 also linked to diabetes, cancer and certain types of immunological disorders.

Reference

1. Cheng MY, Hartl FU, Horwich AL (November 1990). "The mitochondrial chaperonin hsp60 is required for its own assembly". *Nature* 348 (6300): 455–8.
2. 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.
3. Venner, T. J., Singh, B., Gupta, R. S. Nucleotide sequences and novel structural features of human and Chinese hamster hsp60 (chaperonin) gene families. *DNA Cell Biol.* 9: 545-552, 1990.
4. Lebreton T, Watson RW, Molinié V, et al. (September 2003). "Heat shock proteins HSP27, HSP60, HSP70, and HSP90: expression in bladder carcinoma". *Cancer* 98 (5): 970–7.

FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC AND CLINICAL USE.

Chongqing Biospes Co., Ltd Tel: +86-23-67567091 Fax: +86-23-67745923

7F, Bldg B, High-tech Venture Park, # 107 Erlang Chuangye Rd, Jiulongpo District, Chongqing, 400039, China

www.biospes.com