



Heat Shock Protein 60 (HSP60, GroEL, Chaperonin 60, cpn60)

Catalog number

H1834-25K

Supplier

United States Biological

In both prokaryotic and eukaryotic cells the misfolding and aggregation of proteins during biogenesis and under conditions of cellular stress are prevented by molecular chaperones (1-3). HSP60 has primarily been known as a mitochondrial protein that is important for folding key proteins after import into the mitochondria (4). It is now clear that a significant amount of HSP60 is also present in the cytosol of many cells and that it is induced by stress, inflammatory and immune responses, autoantibodies correlated with Alzheimer's, coronary artery diseases, MS, and diabetes (5-8).

Applications

Suitable for use in Western Blot, Immunofluorescence and Flow Cytometry. Other applications have not been tested.

Recommended Dilutions

Western Blot: 1:1000, incubate membrane with diluted primary antibody in 5% BSA, 1X TBS, 0.1% Tween-20 at 4°C with gentle shaking, overnight.

Immunofluorescence (IF-IC): 1:50

Flow Cytometry: 1:50

Optimal dilutions to be determined by the researcher.

Storage and Stability

May be stored at 4°C for short-term only. For long-term storage, aliquot and store at -20°C. Aliquots are stable for 12 months at -20°C. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Further dilutions can be made in assay buffer.

Immunogen

Synthetic peptide surrounding Asp85 of human HSP60.

Formulation

Supplied as a liquid in 10mM sodium HEPES, pH 7.5, 150mM sodium chloride, 0.1mg/ml BSA, 50% glycerol.

Purity

Purified by Protein A and peptide affinity chromatography.

Specificity

Recognizes endogenous levels of total human HSP60 protein. Does not cross-react with other HSPs. Species crossreactivity: mouse, rat, monkey, D. melanogaster.

Product Type

Pab

**Source**

human

Isotype

IgG

Grade

Affinity Purified

Applications

FC IF WB

Crossreactivity

Dr Hu Mk Mo Rt

Storage

-20°C

MW

60

Reference

Hartl, F.U. (1996) Nature 381, 571-579. Bukau, B. and Horwich, A.L. (1998) Cell 92, 351-366. Hartl, F.U. and Hayer-Hartl, M. (2002) Science 295, 1852-1858. Jindal, S. et al. (1989) Mol. Cell Biol. 9, 2279-2283. Itoh, H. et al. (2002) Eur. J. Biochem. 269, 5931-5938. Gupta, S. and Knowlton, A.A. J. Cell Mol. Med. 9, 51-58. Deocaris, C.C. et al. (2006) Cell Stress Chaperones 11, 116-128. Lai, H.C. et al. (2007) Am. J. Physiol. Endocrinol. Metab. 292, E292-E297.