Revision 1

Store at -20C

#4869

HSP60 (D85) Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:
W, IF-IC, FC-FP	H M R Mk Dm	Endogenous	60	Rabbit

Product Usage Information

Application	Dilution
Western Blotting	1:1000
Immunofluorescence (Immunocytochemistry)	1:50
Flow Cytometry (Fixed/Permeabilized)	1:50

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at –20°C. Do not aliquot the antibody.

Specificity/Sensitivity

HSP60 (D85) Antibody detects endogenous levels of total HSP60 protein. This antibody does not cross-react with other HSPs.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide surrounding Asp85 of human HSP60. Antibodies are purified by protein A and peptide affinity chromatography.

Background

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). Research studies have shown 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, and autoantibodies correlated with Alzheimer's, coronary artery diseases, MS, and diabetes (5-8).

Background References

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

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting **IF-IC:** Immunofluorescence (Immunocytochemistry) **FC-FP:** Flow Cytometry (Fixed/Permeabilized)

Cross-Reactivity Key

H: Human **M:** Mouse **R:** Rat **Mk:** Monkey **Dm:** D. melanogaster

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Limited Uses

force or effect.

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