#12165 Store at -20°C

HSP60 (D6F1) XP® Rabbit mAb

☐ Small 100 µl
(10 western blots)

☐ Petite 40 µl
(4 western blots)

Cell Signaling TECHNOLOGY®

Orders ■ 877-616-CELL (2355)
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For Research Use Only. Not For Use In Diagnostic Procedures.

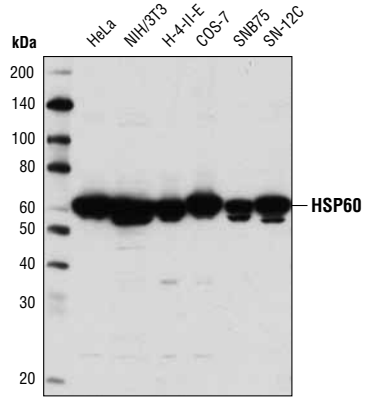
Entrez-Gene ID #3329
UniProt ID #P10809

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IHC-P, IF-IC, F	H, M, R, Hm, Mk, X, Z, B,	60 kDa	Rabbit IgG**
Endogenous	Pg, (C, Dg, Hr)		

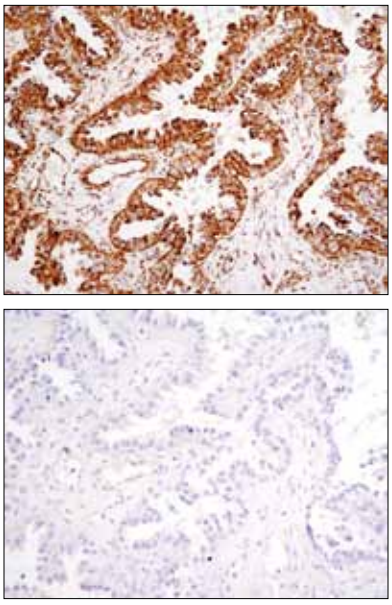
Background: In both prokaryotic and eukaryotic cells the misfolding and aggregation of proteins during biogenesis and under conditions of cellular stress are prevented by molecular chaperones (1-3). HSP60 has primarily been known as a mitochondrial protein that is important for folding key proteins after import into the mitochondria (4). Research studies have recently 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, autoantibodies correlated with Alzheimer's, coronary artery diseases, MS, and diabetes (5-8).

Specificity/Sensitivity: HSP60 (D6F1) XP® Rabbit mAb recognizes endogenous levels of total HSP60 protein.

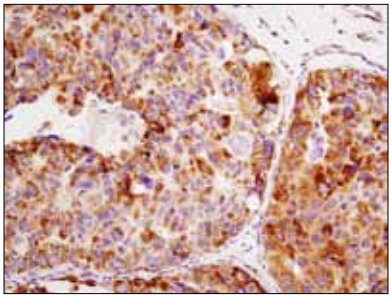
Source/Purification: Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Trp68 of human HSP60 protein.



Western blot analysis of extracts from various cell lines using HSP60 (D6F1) XP® Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human ovarian carcinoma using HSP60 (D6F1) XP® Rabbit mAb in the presence of control peptide (upper) or antigen-specific peptide (lower).



Immunohistochemical analysis of paraffin-embedded human breast carcinoma using HSP60 (D6F1) XP® Rabbit mAb.

Storage: Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA, 50% glycerol and less than 0.02% sodium azide. Store at –20°C. *Do not aliquot the antibody.*

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:

Western blotting	1:1000
Immunohistochemistry (Paraffin)	1:400†
Unmasking buffer:	Citrate
Antibody diluent:	SignalStain® Antibody Diluent #8112
Detection reagent:	SignalStain® Boost (HRP, Rabbit) #8114

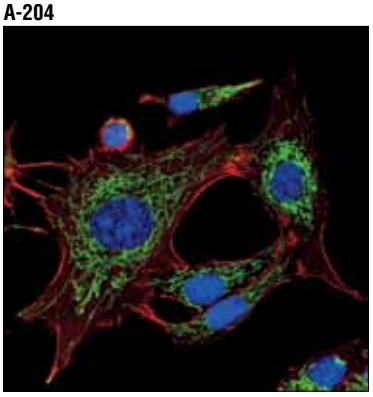
†*Optimal IHC dilutions determined using SignalStain® Boost IHC Detection Reagent.*

Immunofluorescence (IF-IC)	1:800
Flow Cytometry	1:200

For product specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

A-204

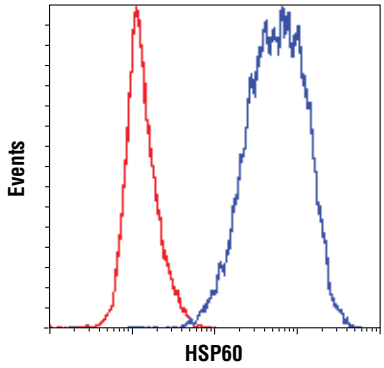


Confocal immunofluorescent analysis of A-204 cells using HSP60 (D6F1) XP® Rabbit mAb (green). Actin filaments were labeled with DyLight™ 554 Phalloidin #13054 (red). Blue pseudocolor = DRAQ5® #4084 (fluorescent DNA dye).

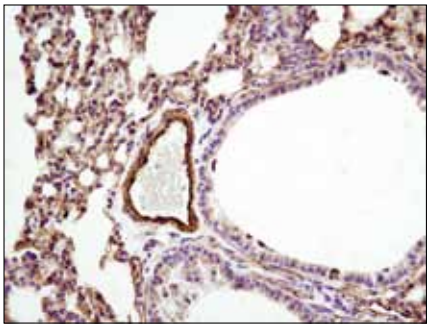
IMPORTANT: For western blots, incubate membrane with diluted antibody in 5% w/v BSA, 1X TBS, 0.1% Tween®20 at 4°C with gentle shaking, overnight.

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide

Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **Mi**—mink **C**—chicken **Dm**—D. melanogaster **X**—Xenopus **Z**—zebrafish **B**—bovine **Dg**—dog **Pg**—pig **Sc**—S. cerevisiae **Ce**—C. elegans **Hr**—horse **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.



Flow cytometric analysis of HeLa cells using HSP60 (D6F1) XP® Rabbit mAb (blue) compared to concentration-matched Rabbit (DA1E) mAb IgG XP® Isotype Control #3900 (red). Anti-rabbit IgG (H+L), F(ab')$_2$ Fragment (Alexa Fluor® 488 Conjugate) #4412 was used as a secondary antibody.



Immunohistochemical analysis of paraffin-embedded mouse lung using HSP60 (D6F1) XP® Rabbit mAb.

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.