

#4871 Store at -20°C

# HSP40 (C64B4) Rabbit mAb



✓ 100 µl  
(10 western blots)

**Orders** ■ 877-616-CELL (2355)  
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New 02/08

This product is intended for research purposes only. This product is not intended to be used for therapeutic or diagnostic purposes in humans or animals.

Applications	Species Cross-Reactivity*	Molecular Wt.	Isotype
W, IHC-P Endogenous	H, M, R, Mk	40 kDa	Rabbit IgG**

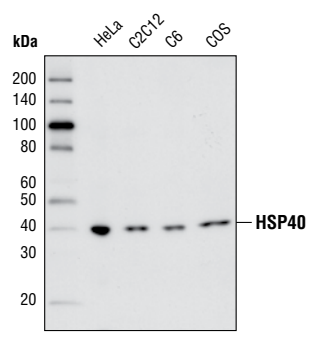
**Background:** HSP40 and HSP40-like proteins represent a large family of chaperone proteins that are homologous to *E. coli* DnaJ protein (1). These proteins are classified into three subtypes based on their structures. The common feature of the family is a conserved J domain, which is usually located at the amino terminus of proteins and responsible for their association with HSP70 (1,2). Human HSP40, also known as Hdj1, belongs to subtype II that contain a unique Gly/Phe-rich region (2). HSP40 family proteins bind unfolded proteins, prevent their aggregation, and then deliver them to HSP70 (2,3). Another major function of HSP40 is to stimulate ATPase activity of HSP70, which causes conformational change of the unfolded proteins (4,5). The HSP40-HSP70-unfolded protein complex further binds to co-chaperones Hip, Hop and HSP90 or components of the protein degradation machinery such as CHIP and BAG-1, which either leads to protein folding or degradation, respectively (6).

**Specificity/Sensitivity:** HSP40 (C64B4) Rabbit mAb detects endogenous levels of total HSP40 protein. This antibody does not cross-react with other HSPs.

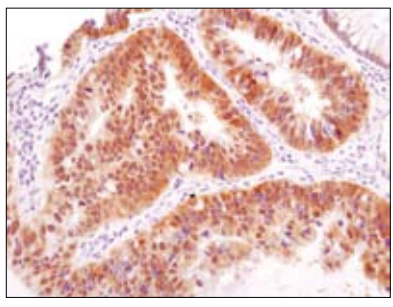
**Source/Purification:** Monoclonal antibody is produced by immunizing animals with a synthetic peptide corresponding to Glu223 of human HSP40/Hdj1.

### Background References:

- (1) Cheetham, M.E. and Caplan, A.J. (1998) *Cell Stress Chaperones* 3, 28–36.
- (2) Fan, C.Y. et al. (2003) *Cell Stress Chaperones* 8, 309–316.
- (3) Langer, T. et al. (1992) *Nature* 356, 683–689.
- (4) Liberek, K. et al. (1991) *Proc. Natl. Acad. Sci. USA* 88, 2874–2878.
- (5) Cyr, D.M. et al. (1992) *J. Biol. Chem.* 267, 20927–20931.
- (6) Höhfeld, J. et al. (2001) *EMBO Rep.* 2, 885–890.



Western blot analysis of extracts from HeLa, C2C12, C6 and COS cells using HSP40 (C64B4) Rabbit mAb.



Immunohistochemical analysis of paraffin-embedded human colon carcinoma using HSP40 (C64B4) Rabbit mAb.

Entrez-Gene ID # 3337  
Swiss-Prot Acc. # P25685

**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)	1:25
Unmasking buffer:	Citrate
Antibody diluent:	TBST-5%NGS

For application specific protocols please see the web page for this product at [www.cellsignal.com](http://www.cellsignal.com).

Please visit [www.cellsignal.com](http://www.cellsignal.com) for a complete listing of recommended companion products.

**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.**

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**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.