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Monoclonal Antibody to Hsp40 / Ydj1 - Purified

Catalog No.:	AM12025PU-S
Quantity:	25 µg
Concentration:	1.0 mg/ml
Background:	Human Hsp40/DnaJ proteins comprise a large protein family, members of which feature the J domain (named after the bacterial DnaJ protein) (1). The J-domain spans the first 75 N-terminal amino acids and is separated from the C-terminal by a glycine/phenylalanine-rich domain (2). There are two main types of Hsp40; type 1 DNAJ proteins including HDJ2 and yeast YdjI; type II includes yeast Sis1 and human Hdj1. Whereas type I possesses a zinc finger domain which helps in the function of protein folding. (3, 4), type II does not. Members of the Hsp40/DnaJ family play diverse roles in many cellular processes, such as folding, translocation, degradation and assembly of multi-protein complexes. Hsp40 stimulates the ATPase activity of Hsp70 which in turn causes conformational changes of the unfolded proteins (5, 6). The Hsp40-Hsp70-unfolded protein complex further binds to co-chaperones Hip, Hop and HSP90 which leads to protein folding, or components of protein degradation machinery CHIP and BAG-1 (7).
Uniprot ID:	P39102
NCBI:	NP_013191
GeneID:	850779
Host / Isotype:	Mouse / IgG1
Recommended Isotype Controls:	AM03095PU-N
Clone:	1G10.H8
Immunogen:	Full length protein yeast HSP40 (YDJ1)
Format:	**State:** Liquid Ig fraction **Purification:** Protein G chromatography **Buffer System:** 0.09 % sodium azide in 50 % glycerol
Applications:	Western blot: 1/2000. Immunoprecipitation. ELISA. Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.
Specificity:	This antibody detects Hsp40 T ~40kDa.
Species Reactivity:	**Tested:** Yeast. Does not cross react with human, mouse, and rat.

Storage: Store the antibody at 2 - 8 °C up to one month or (in aliquots) at -20 °C for longer. Avoid repeated freezing and thawing.
Shelf life: one year from despatch.

General Readings:

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. Terda K., et al. (1997) J Cell Biol. 139: 1089-1095.
4. Lu Z. and Cyr D.M. (1998) J Biol Chem. 273: 27824-27830.
5. Liberek K. et al. (1991) Proc. Natl. Acad. Sci. USA 88: 2874–2878.
6. Cyr D.M., et al. (1992) J Biol Chem. 267: 20927–20931.
7. Höhfeld J., et al. (2001) EMBO Rep. 2: 885–890.

Pictures: Western blot analysis of Hsp40 YDJ1 in a human cell line mix using a 1:1000 dilution of TA309369.