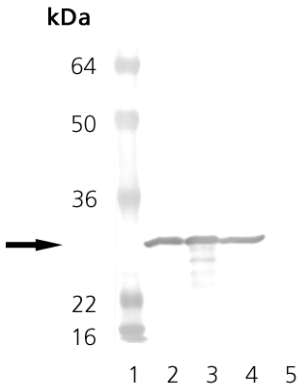
Hsp27, mAb (G3.1)

Product Specifications

Catalog Number:	**SPA-800** (also known as **ALX-804-068**)
Source:	Mouse
Isotype:	IgG_1
Species Reactivity:	Human, monkey *Other species not tested.*
Applications:	WB[10, 11] : 1:1000 (Colorimetric)
Predicted M.W.:	~ 27 kDa
Concentration:	See product label
Purification:	Protein G Affinity
Format:	PBS, pH 7.2, 0.09% azide, 50% glycerol
Storage:	Store at -20˚C *Shipping conditions may differ from the recommended storage temperature*
Immunogen:	Native human Hsp27 protein[7]

Related Products:

	LYC-HL101	HeLa Cell Lysate (Heat Shocked)
	SAB-101	Goat IgG pAb, AP Conjugate
NEW!	SPA-800-PE	Hsp27 mAb (G3.1), R-Phycoerythrin Conjugate
NEW!	SPA-800-488	Hsp27 mAb (G3.1), DyLight™ 488 Conjugate
NEW!	900-170	Hsp27 (pSer15) EIA Kit
NEW!	900-165	Hsp27 (pSer78) EIA Kit
	EKS-500	Hsp27 ELISA Kit
	SPP-715	Hsp27 Recombinant Protein
	ESP-715	Hsp27 Recombinant Protein - Low Endotoxin



Western Blot Analysis of Hsp27 mAb (G3.1). Lane 1: MWM, Lane 2: HeLa (HS), Lane 3: Vero (HS), Lane 4: Hsp27 rec protein, Lane 5: Hsp25 rec mouse protein

Background:

Hsp27 is one of the most common members of the highly conserved and ubiquitously expressed family of small heat shock proteins (sHSP), which also includes αB-crystallin[1]. It is characterized by a conserved C-terminal α-crystallin domain consisting of two anti-parallel β-sheets that promote oligomer formation required for its primary chaperone function as inhibitors of irreversible protein aggregation[2]. Hsp27 oligomerization is modulated by post-translational phosphorylation of Hsp27 at three serine residues, Ser-15, Ser-78, and Ser-82, by a variety of protein kinases including MAPKAPK-3, PKAcα, p70S6K, PKD I, and PKCδ[3, 4]. Hsp27 has been shown to inhibit actin polymerization by binding of unphosphorylated Hsp27 monomers to actin intermediate filaments[5]. Anti-apoptotic functions of Hsp27 have also been identified through interactions with DAXX7, activation of AKT, and inhibition of apoptosome formation[6-8]. Evidence suggests altered expression of Hsp27 is implicated in the pathogenesis of breast, ovarian, and prostate cancer[9].

References:

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3. Landry, J., et al. (1992) J Biol Chem. 267, 794-803.
4. Stokoe, D., et al. (1992) FEBS Lett. 313, 307-313.
5. Butt, E., et al. (2001) J Biol Chem. 276, 7108-7113.
6. Charette, S.J., et al. (2000) Mol Cell Biol. 20, 7602-7612.
7. Rane, M.J., et al. (2003) J Biol Chem. 278, 27828-27835.
8. Paul, C., et al. (2002) Mol Cell Biol. 22, 816-834.
9. Ciocca, D.R. and Calderwood, S.K. (2005) Cell Stress Chaperones 10, 86-103.
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11. Trautiinger, F., et al. (1997) J Photochem Photobio B Biol. 39, 90-95.