HSP27 monoclonal antibody (G3.1) (PE conjugate)

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 alphaB-crystallin. It is characterized by a conserved C-terminal alpha-crystallin domain consisting of two anti-parallel beta-sheets that promote oligomer formation required for its primary chaperone function as inhibitor of irreversible protein aggregation. Hsp27 oligomerization is modulated by post-translational phosphorylation of Hsp27 at three serine residues, Ser15, Ser78, and Ser82, by a variety of protein kinases including MAPKAPK-3, PKAc-alpha, p70 S6K, PKD I, and PKC-delta. Hsp27 has been shown to inhibit actin polymerization by binding of unphosphorylated Hsp27 monomers to actin intermediate filaments. Anti-apoptotic functions of Hsp27 have also been identified through interactions with DAXX7, activation of Akt, and inhibition of apoptosome formation. Evidence suggests altered expression of Hsp27 is implicated in the pathogenesis of breast, ovarian, and prostate cancer.

This antibody is covered by our Worry-Free Guarantee.

Citations: 2 View Online »

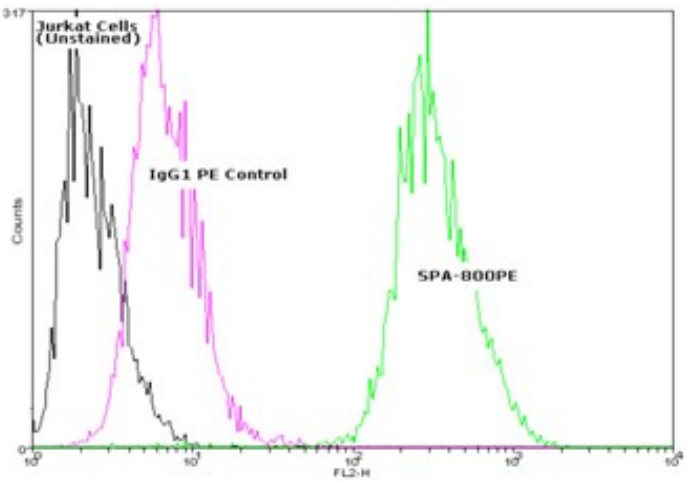
Ordering Information

Order Online »

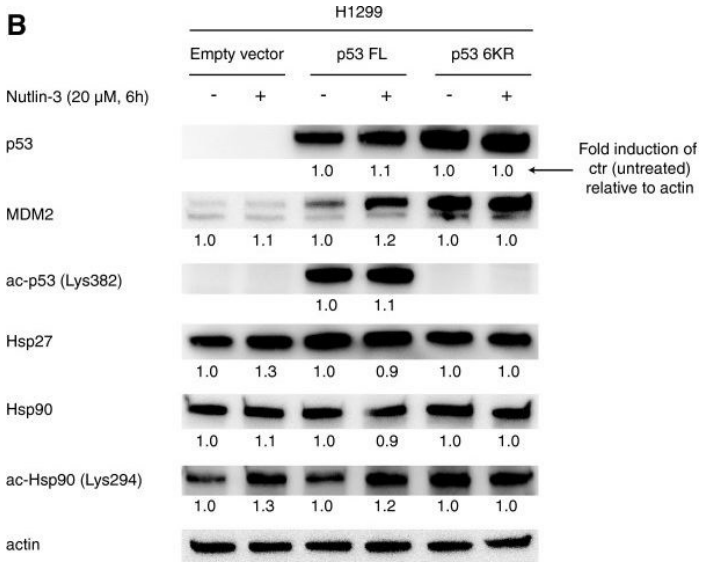
ADI-SPA-800PE-E	100µg

Manuals, SDS & CofA

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Flow cytometry analysis of 10^6 Jurkat cells stained using HSP27 mAb (G3.1), R-Phycoerythrin Conjugate at a concentration of 10µg/ml



Functional role of p53 acetylation in nutlin-sensitivity. (A) SAOS-2 and H1299 cells were transiently transfected with empty vector, p53 full length (FL) or the actylation defective mutant p53 6KR and treated with 20 µM nutlin-3 for 24 hours. Cell viability was determined using the WST-1 viability/proliferation assay (***p < 0.001, **p < 0.01). Results were analyzed in triplicates in tree independent experiments and error bars represent standard error of mean. Transfections were verified in Western blots with antibodies against p53 and actin. (B) H1299 cells were transiently transfected with empty vector (EV), p53 full length (FL), or p53 6KR and treated with DMSO or 20 µM nutlin-3 for 6 hours. Western blotting was performed using antibodies against p53, MDM2, acetylated p53 (Lys382), Hsp27, Hsp90 and acetylated Hsp90 (Lys294) and actin. Bands were quantified using region of interest imaging analysis, and values are given as fold induction of control (DMSO treated sample for each transfection for EV/p53 FL/p53 6KR) relative to actin.

Image collected and cropped by CiteAb under a CC-BY license from the following publication: Molecular mechanisms of nutlin-3 involve acetylation of p53, histones and heat shock proteins in acute myeloid leukemia. *Mol Cancer* (2014)

Handling & Storage

Handling	Avoid vigorous centrifugation and vortexing. Do not freeze. Protect from light.
Long Term Storage	+4°C
Shipping	Blue Ice

Regulatory Status

RUO - Research Use Only

Product Details

Alternative Name	HspB1, Heat shock protein 27
Application	Flow Cytometry
Clone	G3.1
Formulation	Liquid. In PBS, pH 7.2, containing 0.09% sodium azide.
GenBank ID	L39370
Host	Mouse
Immunogen	Native human Hsp27.
Isotype	IgG1
Purity Detail	Protein G affinity purified.
Recommendation Dilutions/Conditions	Flow Cytometry (10µg/ml)Suggested dilutions/conditions may not be available for all applications.Optimal conditions must be determined individually for each application.
Source	Purified from mouse ascites.
Species Reactivity	Bovine, Fish, Human, Monkey, Mouse, Rat
UniProt ID	P04792
Worry-free Guarantee	**This antibody is covered by our Worry-Free Guarantee .**

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