

Human HSP27 antibody

Catalog Number: AHS0702

PRODUCT INFORMATION

Catalog number

AHS0702

Clone No.

2A5

Product type

Monoclonal Antibody

UnitProt No.

P04792

NCBI Accession No.

NP_001531

Alternative Names

Heat shock 27 kDa protein, Hspb1, Hsp25, Hsp27, Hsp27, HspB1, Heat shock 27 kDa protein, HSP 27, Growth-related 25 kDa protein, P25, HSP25, Heat shock protein beta-1, Heat shock 27 kDa protein 28 kDa heat shock protein, CMT2F, DKFZp586P1322, Estrogen regulated 24 kDa protein, at shock 25kDa protein 1, Heat shock 27kDa protein 1, Heat shock 28kDa protein 1, Heat Shock Protein 27, Heat shock protein beta 1, Heat Shock Protein27, HS.76067, Hsp 28, Hsp B1, Hsp28, HspB1, SRP27, Stress responsive protein 27.

PRODUCT SPECIFICATION

Antibody Host

Mouse

Reacts With

Human

Concentration

1mg/ml (determined by BCA assay)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) with 0.02% Sodium Azide, 10% glycerol

Immunogen

Recombinant human Hsp27 (1-205aa) purified from E. coli

Isotype

IgG1 kappa

Purification Note

By protein-G affinity chromatography

Application

ELISA, WB, ICC/IF, IHC, FACS

Usage

The antibody has been tested by ELISA, Western blot, ICC/IF, FACS and IHC analysis to assure specificity and

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reactivity. Since application varies, however, each investigation should be titrated by the reagent to obtain optimal results.

Storage

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

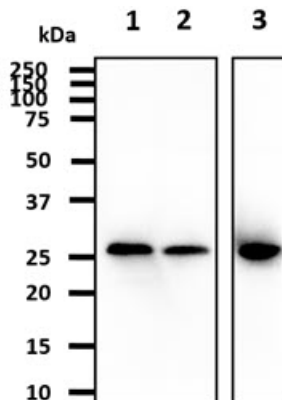
Hsp27 (also known as the Estrogen-Regulated 24k protein, and hsp 28) is a member of the mammalian small heat shock protein family. Hsp27 is expressed constitutively in many tissues and its expression is increased to high levels after various types of stress including elevated temperatures, toxic metals, drugs and oxidants. Also, Hsp27 is phosphorylated in vivo on three phosphorylation sites (Ser15, Ser78 and Ser82) by protein kinases including MAPKAP kinase 2 and the stress-activated protein kinase SAPk2 (p38). Hsp27 forms a multimeric complex within cells, and its primary chaperone function, like other small Hsps, appears to be the stabilization of denatured or aggregated proteins in a refolding competent state.

General References

- Ehrnsperger M, et al., (1997) EMBO J 16:221-229.
Steve J, et al., (2000) Mol Cell Biol 20(20):7602-7612.
Butt E, et al., (2001) J Biol Chem 276:7108-7113.
Michael, et al., (2002) Cell Stress Chaperones 7(3):281-296.

DATA

Western blot analysis (WB)



The cell lysates (40ug) were resolved by SDS-PAGE, transferred to PVDF membrane and probed with anti-human Hsp27 (1:1,000). Proteins were visualized using a goat anti-mouse secondary antibody conjugated to HRP and an ECL detection system.

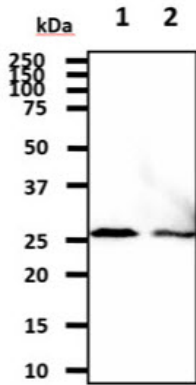
Lane 1.: HeLa cell lysate

Lane 2.: K562 cell lysate

Lane 3.: MCF7 cell lysate

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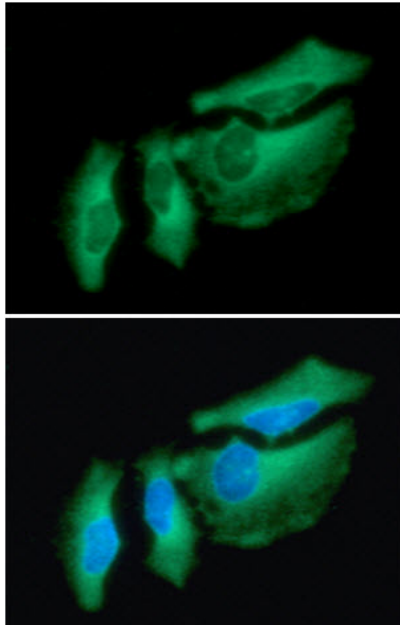


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Lane 1.: A431 cell lysate

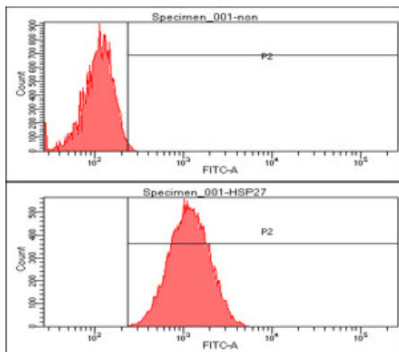
Lane 2.: HepG2 cell lysate

Immunocytochemistry/Immunofluorescence (ICC/IF)



ICC/IF analysis of Hsp27 in HeLa cells. The cell was stained with AHS0702 (1:100). The secondary antibody (green) was used Alexa Fluor 488. DAPI was stained the cell nucleus (blue).

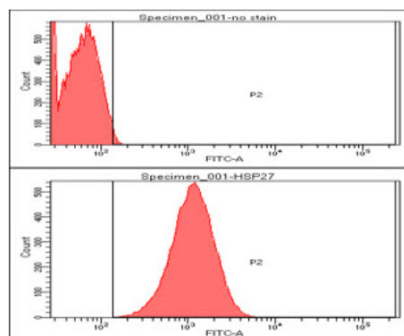
Flow cytometry (FACS)



Flow cytometry analysis of Hsp27 in A549 cell line, staining at 2-5ug for 1x10⁶ cells. The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate.

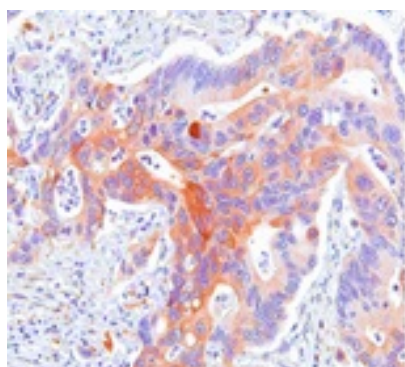
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Flow cytometry analysis of Hsp27 in HeLa cell line, staining at 2-5ug for 1×10^6 cells. The secondary antibody used goat anti-mouse IgG Alexa fluor 488 conjugate.

Immunohistochemistry (IHC)



Paraffin embedded sections of human colon cancer tissue were incubated with anti-human Hsp27 (1:50) for 2 hours at room temperature. Antigen retrieval was performed in 0.1M sodium citrate buffer and detected using Diaminobenzidine (DAB)