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SAFB
Mouse Anti-Human HSP27 Clone 4P18 mAb

Catalog No.	CSI14574	**Quantity:**	100 µg

Alternate Names: DKFZp779C1727, HAP, HET, SAFB1, HSP27 ERE-TATA-binding protein, Hsp27 ERE-TATA binding protein, glutathione S-transferase fusion protein, heat-shock protein (HSP27) estrogen response element and TATA box-binding protein, scaffold attachment factor B1

Description: Heat Shock Protein 27 (HSP27) is a 27 kDa member of a family of proteins whose expression and function are stimulated by heat shock and other stress stimuli. A major function of these proteins is to serve as chaperones that bind to and stabilize the active conformation of other proteins. HSP27, along with other members of the small HSP group, possesses a C-terminal α-crystalline homology domain. HSP27 is localized to the cytoplasm of unstressed cells but can redistribute to the nucleus in response to stress, where it may function to stabilize DNA and/or the nuclear membrane. Cytoplasmic HSP27 exists in multiple complexes. One complex consists of HSP27, Akt (PKB), MAPKAP-kinase 2, and p38 MAPK. The presence of HSP27 in this complex is required for Akt activation by stress stimuli. Another complex consists of HSP27 and the IKK complex. HSP27 is also an actin capping protein that binds to the barbed (growing) ends of actin filaments, thereby inhibiting filament extension. Phosphorylation of HSP27 on serine 82 by MAPKAP-kinase 2 leads to HSP27 dissociation from the Akt/MAPKAPkinase 2/p38 complex and from actin filaments, and stimulates HSP27 binding to the IKK complex. Human HSP27 shares 80% homology with the mouse homolog HSP25 and 43% homology with the C. elegans protein C09B8.6.

Gene ID: 6294

Clone Number: 4P18

Immunogen: Recombinant full length human HSP27 expressed in *E. coli.*

Isotype: IgG1 kappa

Myeloma/Fusion Partners: BALB/c mouse splenocytes were fused with FO myeloma cells.

Formulation: Purified immunoglobulin in phosphate buffered saline containing 1% BSA and 0.1% sodium azide. **Precaution: Sodium azide is a poisonous and hazardous substance which should be handled by trained staff only.**

Purification: Purified by Protein A/G affinity chromatography.

Cross-Reactivity: Human. This antibody cross-reacts with mouse and rat HSP25. Other species were not tested.

Applications: The antibody has been used for Western blotting applications and immunoprecipitation.

Application Notes:

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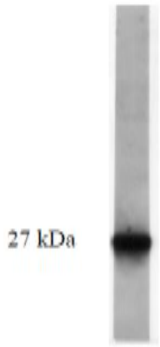
For Western blotting applications, we recommend using the antibody at 0.1-1.0 µg/mL. The optimal antibody concentration should be determined empirically for each specific application.

Storage & Stability: Store at 2-8°C for up to one month. For long term storage, apportion into working aliquots and store at -20°C. Avoid repeated freeze-thaw cycles to prevent denaturing the antibody.

Positive Control Used: HeLa and A431 cells

Extract prepared from human HeLa cells was resolved by SDS-PAGE on a 4-20% polyacrylamide gel and transferred to PVDF. The membrane was blocked with a 5% milk-TBST buffer and then incubated with 0.50 µg/mL HSP27 monoclonal antibody (clone 4P18) for two hours at room temperature in a 5% milk-TBST buffer. After washing, membranes were incubated with goat F(ab')2 anti-mouse IgG alkaline phosphatase and signals were detected using the Tropix WesternStar™ method.



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