Order: 877-772-2622
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Phospho-HSP27 (pS82) Rabbit Monoclonal Antibody Product Data Sheet

Catalog #1118-1

Clone ID: E118 **Lot #:**
Quantity: 100 µl
Type: Rabbit Monoclonal IgG
Species Cross-reactivity: **+ Human - Mouse + Rat**
Applications: **+ WB + IHC + ICC - Flow Cytometry + IP**
Molecular Wt.: 27 kDa
UniProt ID: P04792

Background: Heat shock protein (HSP) 27 is one of the small HSPs, and is involved in stress resistance and actin organization. HSP27 is expressed in response to environmental stresses such as heat shock, or estrogen stimulation in MCF-7 cells (1,2). HSP27 is phosphorylated at serines 15, 78 and 82 by MAPKAP kinase 2 as a result of the activation of the p38 MAP kinase pathway (3,4).

Specificity: A synthetic phospho-peptide corresponding to residues surrounding Ser82 of human Hsp27 was used as immunogen. The antibody only detects Hsp27 phosphorylated on Serine 82.

Storage Conditions: Store at -20 °C. Buffer: 50 mM Tris-Glycine (pH 7.4), 0.15 M NaCl, 40% Glycerol, 0.01% sodium azide and 0.05% BSA. Stable for 12 months from date of receipt.

Recommended Dilutions:
WB: 1:2000 - 5000
IHC: 1:250
ICC: 1:100
IP: 1:30

Background References:
1. Mendelsohn, M.E., et al. The 29-kDa proteins phosphorylated in thrombin-activated human platelets are forms of the estrogen receptor-related 27-kDa heat shock protein. Proc Natl Acad Sci U S A. 88: 11212–6 (1991).
2. Faucher, C., et al. The 28-kDa protein whose phosphorylation is induced by protein kinase C activators in MCF-7 cells belongs to the family of low molecular mass heat shock proteins and is the estrogen-regulated 24-kDa protein. J. Biol Chem. 268: 15168–73 (1993).
3. Landry, J., et al. Human HSP27 is phosphorylated at serines 78 and 82 by heat shock and mitogen-activated kinases that recognize the same amino acid motif as S6 kinase II. J. Biol. Chem. 267: 794–803 (1992).
4. Rouse, J., et al. A novel kinase cascade triggered by stress and heat shock that stimulates MAPKAP kinase-2 and phosphorylation of the small heat shock proteins. Cell 78: 1027–1037 (1994).

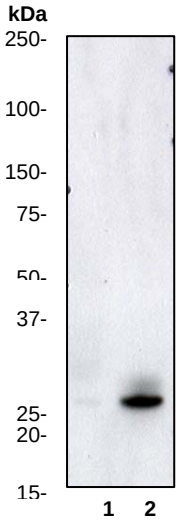
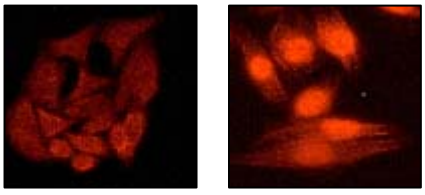


Fig 1. Western blot analysis on Hela cell lysate using anti-Phospho-HSP27 (pS82) RabMAb (catalog #1118-1), 1:5,000 dilution. Cells were either (1) untreated or (2) treated at 42 °C.



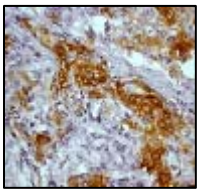


Fig 2. Immunohistochemical analysis of paraffin-embedded urinary bladder carcinoma using anti-Phospho-HSP27 (pS82) RabMAb (catalog #1118-1).

Fig 3. Immunofluorescent staining of HSP relocating to nucleus upon heat shock in HeLa cells using anti-Phospho-HSP27 (pS82) RabMAb (catalog #1118-1).

Product QC'd by:

Epitomics, Inc., 863 Mitten Road, Suite 103 Burlingame, California 94010-1303

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