

## Heat Shock Protein 27 . Mouse Monoclonal Antibody G3.1 , Human

### BACKGROUND

HSP27, also referred to as the Estrogen-Regulated 24K protein and HSP28, is one of several small heat shock proteins (HSP) produced by all organisms studied. HSP27 synthesis is induced by elevated temperature as well as estrogen in hormone responsive cells. Interestingly, human HSP27 also shares greater than 50% homology with low molecular weight Drosophila HSP's and mammalian alpha-crystalline lens protein. Because of the estrogen responsive nature of HSP27, this protein has been studied extensively in human estrogen responsive tissues such as cervix, endometrium and breast tissue. Therefore, HSP27 may be useful in classifying various hormone sensitive tumors.

### ORDERING INFORMATION

**CATALOG NUMBER**  
X1264M

**SIZE**  
100 µg

**FORM**  
Unconjugated

**HOST/CLONE**  
Mouse Clone G3.1

**FORMULATION**  
Provided as solution in phosphate buffered saline with 0.08% sodium azide

**CONCENTRATION**  
1 mg/ml

**ISOTYPE**  
IgG1

**APPLICATIONS**  
Western Blot, Immunohistochemistry, Enzyme Immunoassay

### IMMUNOGEN

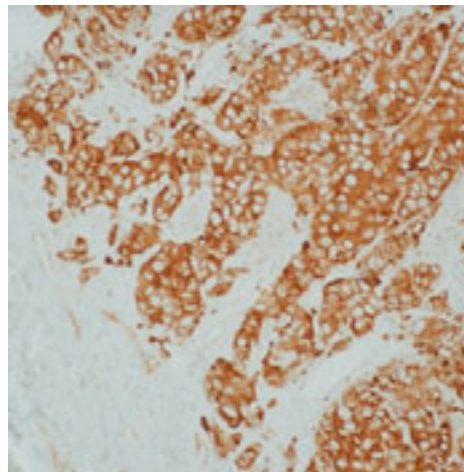
Hybridoma produced by the fusion of splenocytes from BALB/c mice immunized with partially purified HSP27 derived from MCF-7 cytosol and mouse myeloma cells.

### SPECIES REACTIVITY

Human

### Legend:

Formalin-fixed, paraffin-embedded human breast carcinoma stained with Heat Shock Protein 27 (Cat. #X1264M) using peroxidase-conjugate and DAB chromogen. Note intense cytoplasmic staining of tumor cells.



**For research use only. Not for use in human diagnostics or therapeutics.**

**POSITIVE CONTROL/TISSUE EXPRESSION****COMMENTS**

This antibody can be used for immunohistochemistry and immunocytochemistry on frozen and paraffin-embedded tissue sections as well as for ELISA, immunoprecipitation and Western blot. Optimal concentration should be evaluated by serial dilutions.

**SHIP CONDITIONS**

Ship at ambient temperature, freeze upon arrival

**STORAGE CUSTOMER**

Product should be stored at -20°C. Aliquot to avoid freeze/thaw cycles

**STABILITY**

Products are stable for one year from purchase when stored properly

**REFERENCES**

1. Adams, D.J., et al. "Detection of a Mr 24,000 estrogen-regulated protein in human breast cancer by monoclonal antibodies." *Cancer Res.* 1983, 43, 4297-4301.
2. Moretti-Rojas, I., et al., "A cDNA for the estradiol-regulated 24K protein: control of mRNA levels in MCF-7 cells." *Breast Cancer Res. Treat.* 1988, 11, 155-163.
3. Hino, M., et al. "Small heat shock protein 27 (HSP27) associates with tubulin/microtubules in HeLa cells." *Biochem. Biophys. Res. Commun.* 2000, 271, 164-169.
4. Ciocca, D.R. and Luque, E.H. "Immunological evidence for the identity between the hsp27 estrogen-regulated heat shock protein and the p29 estrogen receptor-associated protein in breast and endometrial cancer." *Breast Cancer Res. Treat.* 1991, 20, 33-42.

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