Heat Shock Protein 27 (HSP27) Ab-1 (Clone G3.1)

Mouse Monoclonal Antibody
Cat. #MS-101-P0, -P1, or -P (0.1ml, 0.5ml, or 1.0ml at 200 µg/ml) (Purified Ab with BSA and Azide)
Cat. #MS-101-P1ABX or -PABX (0.1ml or 0.2ml at 1.0mg/ml) (Purified Ab without BSA and Azide)
Cat. #MS-101-B0, -B1, or -B (0.1ml, 0.5ml, or 1.0ml at 200 µg/ml) (Biotin-Labeled Ab with BSA and Azide)
Cat. #MS-101-R7 (7.0ml) (Ready-to-Use for Immunohistochemical Staining)
Cat. #MS-101-PCS (5 Slides) (Positive Control for Histology)
Cat. #MS-101-PCL (0.1ml) (Positive Control for Western Blot)

**Description:** Hsp27 is identical to the estrogen-induced “p29” and “24K” protein. About 50% of breast carcinomas are positive for hsp27 especially those that are also positive for estrogen and/or progesterone receptor. HSP27 has also been implicated in drug resistance in cancer cells.

**Mol. Wt. of Antigen:** 24-27kDa

**Epitope:** Not determined

**Species Reactivity:** Human, Chimpanzee, and Monkey. Does not react with mouse and rat. Others-not known.

**Clone Designation:** G3.1

**Ig Isotype:** IgG1

**Immunogen:** Partially purified hsp27 (earlier called 24K) protein from breast cancer MCF-7 cells.

**Applications and Suggested Dilutions:**
- Western Blotting (Ab 1-2µg/ml for 2hrs at RT)
- Immunohistology (Formalin/paraffin) (Ab 1-2µg/ml for 30 min at RT)
  - [Staining of formalin-fixed tissues REQUIRES boiling tissue sections in 10 mM citrate buffer, pH 6.0, (NEOMARKERS’ Cat. #AP-9003), for 10-20 min followed by cooling at RT for 20 min.]

The optimal dilution for a specific application should be determined by the investigator.

**Positive Control:** BT474 or MDA-MB-453 cells. Breast carcinoma.

**Cellular Localization:** Cytoplasmic / nuclear

**Storage and Stability:** Ab with sodium azide is stable for 24 months when stored at 2-8°C. Antibody WITHOUT sodium azide is stable for 36 months when stored at below 0°C.

**Supplied As:** 200µg/ml of antibody purified from ascites fluid by Protein G chromatography. Prepared in 10mM PBS, pH 7.4, with 0.2% BSA and 0.09% sodium azide. Also available without BSA and azide at 1mg/ml. Or Prediluted antibody which is ready-to-use for staining of formalin-fixed, paraffin-embedded tissues.

**Key References:**

**Limitations and Warranty:**
Our products are intended FOR RESEARCH USE ONLY and are not approved for clinical diagnosis, drug use or therapeutic procedures. No products are to be construed as a recommendation for use in violation of any patents. NeoMarkers makes no representations, warranties or assurances as to the accuracy or completeness of information provided on our data sheets and website. Our warranty is limited to the price paid for the product. NeoMarkers is not liable for any property damage, personal injury, time or effort or economic loss caused by our products.

**Material Safety Data:**
This product is not licensed or approved for administration to humans or to animals other than the experimental animals. Standard Laboratory Practices should be followed when handling this material. The chemical, physical, and toxicological properties of this material have not been thoroughly investigated. Appropriate measures should be taken to avoid skin and eye contact, inhalation, and ingestion. The material contains 0.09% sodium azide as a preservative. Although the quantity of azide is very small, appropriate care should be taken when handling this material as indicated above. The National Institute of Occupational Safety and Health has issued a bulletin citing the potential explosion hazard due to the reaction of sodium azide with copper, lead, brass, or
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solder in the plumbing systems. Sodium azide forms hydrazoic acid in acidic conditions and should be discarded in a large volume of running water to avoid deposits forming in metal drainage pipes.

For Research Use Only

Additional Key References:
3. Mehlen P; Arrigo AP. The serum-induced phosphorylation of mammalian hsp27 correlates with changes in its intracellular localization and levels of oligomerization. Eur J of Biochemistry, 1994, 221:327-34.
5. Ungar DR; Hailat N; Strahler JR; Kuick RD; Brodeur GM; Seeger RC; Reynolds CP; Hanash SM. Hsp27 expression in neuroblastoma: correlation with disease stage. J of the National Cancer Institute, 1994, 86:780-4.
8. Faucher C; Capdevielle J; Canal I; Ferrara P; Mazarguil H; McGuire WL; Darbon JM. 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. Journal of Biological Chemistry, 1993, 268(20):15168-73.
18. Navarro D; Cabrera JI; Leon L; Chirino R; Fernandez L; Lopez A; Rivero JF; Fernandez P; Falcon O; Jimenez P; et al. Endometrial stromal sarcoma expression of estrogen receptors, progesterone receptors and estrogen-induced srp27 (24K) suggests hormone responsiveness. Journal of Pathology, 1993, 534(2):1743-53.
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37. Ciocca DR; Adams DJ; Edwards DP; Bjerveck RJ; McGuire WL. Estrogen induced 24K-protein in MCF-7
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