

# Product Datasheet

## HSP27 Antibody (G3.1)

### NBP2-32972-0.1mg

Unit Size: 0.1 mg

Store at 4C.

[www.novusbio.com](http://www.novusbio.com)



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**NBP2-32972-0.1mg**

HSP27 Antibody (G3.1)

Product Information	
Unit Size	0.1 mg
Concentration	0.2 mg/ml
Storage	Store at 4C.
Clonality	Monoclonal
Clone	G3.1
Preservative	0.05% Sodium Azide
Isotype	IgG1 Kappa
Purity	Protein A or G purified
Buffer	10 mM PBS with 0.05% BSA
Target Molecular Weight	27 kDa

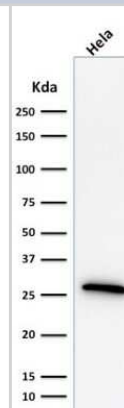
Product Description	
Description	200ug/ml of antibody purified from Bioreactor Concentrate by Protein A or G. Prepared in 10 mM PBS with 0.05% BSA & 0.05% azide. Also available WITHOUT BSA at 1.0 mg/ml. (NBP2-34621)  Antibody with azide - store at 2 to 8C. Antibody without azide - store at -20 to -80 C.
Host	Mouse
Gene ID	3315
Gene Symbol	HSPB1
Species	Human, Mouse, Rat, Chicken, Chimpanzee, Monkey, Sheep
Specificity/Sensitivity	monoclonal antibody G3.1 reacts specifically with heat shock protein HSP27 in human and monkey tissues and cell lines such as MCF-7. HSP27, also referred to as the Estrogen-Regulated 24K protein and HSP28, is one of several small heat shock proteins produced by all organisms studied. HSP27 synthesis is induced by elevated temperature, as well as by estrogen in hormone responsive cells. Interestingly, human HSP27 also shares greater than 50% homology with low molecular weight Drosophila HSPs 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.
Immunogen	Partially purified hsp27 (earlier called 24K) protein from breast cancer MCF-7 cells.

Product Application Details	
Applications	Western Blot, Flow Cytometry, Immunocytochemistry/ Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 1-2 ug/ml, Flow Cytometry 1-2 ug/million cells, Immunohistochemistry, Immunocytochemistry/ Immunofluorescence 1-2 ug/ml, Immunohistochemistry-Paraffin 1-2 ug/ml
Application Notes	Immunohistochemistry (Formalin-fixed): 1-2ug/ml for 30 minutes at RT. Staining of formalin-fixed tissues requires heating tissue sections in 10mM Tris with 1mM EDTA, pH 9.0, for 45 min at 95C followed by cooling at RT for 20 minutes. Optimal dilution for a specific application should be determined.

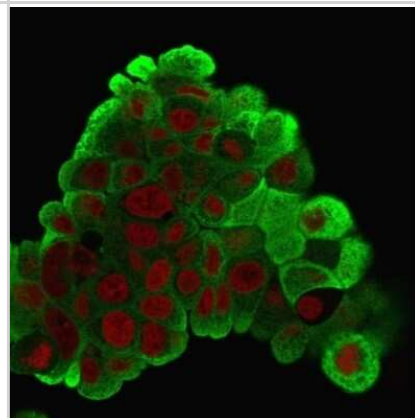


## Images

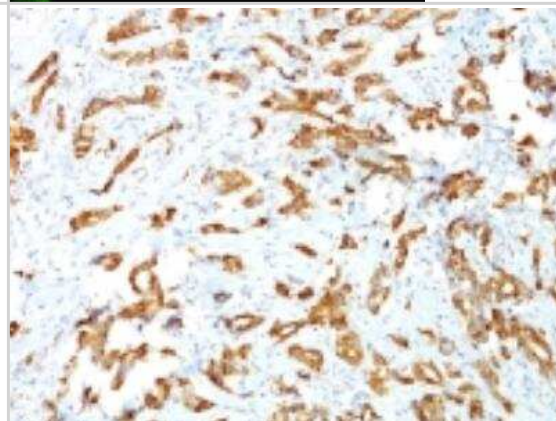
Western Blot: HSP27 Antibody (G3.1) [NBP2-32972] - Western Blot Analysis of HeLa cell lysate using HSP27 Antibody (G3.1).



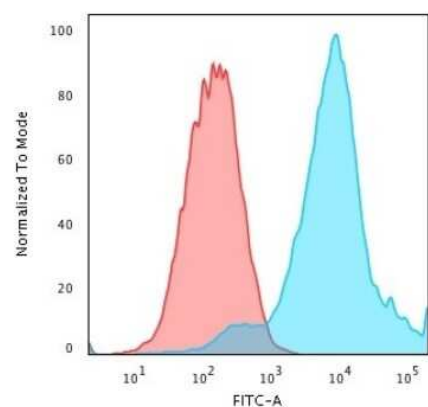
Immunocytochemistry/Immunofluorescence: HSP27 Antibody (G3.1) [NBP2-32972] - Immunofluorescence Analysis of PFA-fixed MCF-7 cells labeling HSP27 with followed by Goat anti-Mouse IgG-CF488 (Green). The nuclear counterstain is Red Dot (Red)



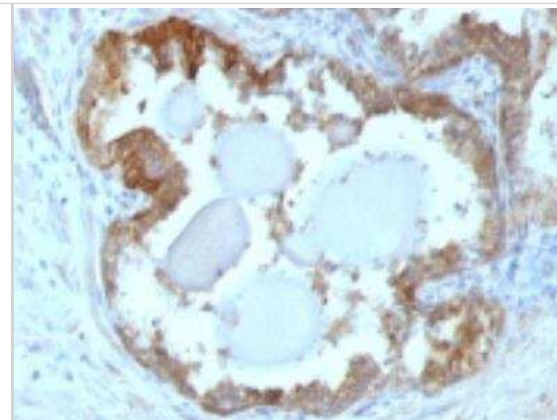
Immunohistochemistry-Paraffin: HSP27 Antibody (G3.1) [NBP2-32972] - Formalin-fixed, paraffin-embedded human Breast Carcinome stained with HSP27 Monoclonal Antibody (G3.1)



Flow Cytometry: HSP27 Antibody (G3.1) [NBP2-32972] - Flow Cytometric Analysis of PFA-fixed MCF-7 cells using HSP27 Antibody (G3.1) followed by Goat anti-Mouse-IgG-CF488 (Blue); Isotype Control (Red).



Immunohistochemistry-Paraffin: HSP27 Antibody (G3.1) [NBP2-32972] - Formalin-fixed, paraffin-embedded human prostate Carcinoma stained with HSP27 Monoclonal Antibody (G3.1)



## Publications

Melissa Schwab, Ali Bashiri Dezfouli, Mohammad Khosravi, Bayan Alkotub, Lisa Bauer, Mohammad Javed Tahmasebi Birgani, Gabriele Multhoff The radiation- and chemo-sensitizing capacity of diclofenac can be predicted by a decreased lactate metabolism and stress response. Radiation oncology (London, England) 2024-01-18 [PMID: 38229111]

Schwab M, Thunborg K, Azimzadeh O et al. Targeting Cancer Metabolism Breaks Radioresistance by Impairing the Stress Response Cancers (Basel) 2021-07-27 [PMID: 34359663] (Western Blot, Block/Neutralize)

Schwab M, Dezfouli A, Khosravi M et al. The radiation- and chemo-sensitizing capacity of diclofenac can be predicted by a decreased lactate metabolism and stress response Research Square 2023-03-20 (WB)

Schwab M, Thunborg K, Azimzadeh O et al. Abstract 5426: Down-regulation of cancer metabolism enhances radiosensitivity by impairing the heat shock response Cancer Research 2022-06-15

Schwab M, Multhoff G A Low Membrane Hsp70 Expression in Tumor Cells With Impaired Lactate Metabolism Mediates Radiosensitization by NVP-AUY922 Frontiers in oncology [PMID: 35463341] (WB, Mouse)



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### Products Related to NBP2-32972-0.1mg

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HAF007	Goat anti-Mouse IgG Secondary Antibody [HRP]
NB720-B	Rabbit anti-Mouse IgG (H+L) Secondary Antibody [Biotin]
NBP1-43319-0.5mg	Mouse IgG1 Kappa Isotype Control (P3.6.2.8.1)
NBP1-75477PEP	HSP27 Antibody Blocking Peptide

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### Limitations

This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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