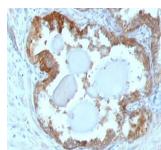


## HSP27 Monoclonal Mouse Antibody (G3.1)



### Product Description

This MAb 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.

Primary antibodies are available purified, or with a selection of fluorescent CF® dyes and other labels. CF® dyes offer exceptional brightness and photostability. See the [CF® Dye Brochure](#) for more information. Note: Conjugates of blue fluorescent dyes like CF®405S and CF®405M are not recommended for detecting low abundance targets, because blue dyes have lower fluorescence and can give higher non-specific background than other dye colors.

**Stock status:** Because Biotium offers a large number of antibody and conjugation options, primary antibody conjugates may be made to order. Typical lead times are up to one week for CF® dye and biotin conjugates, and up to 2-3 weeks for fluorescent protein and enzyme conjugates. Please email [order@biotium.com](mailto:order@biotium.com) to inquire about stock status and lead times before placing your order.

#### Catalog number key for antibody number 0861, Anti-HSP27 (G3.1)

### Product attributes

Antibody number	#0861
Antibody reactivity (target)	HSP27
Antibody type	Primary
Host species	Mouse
Clonality	Monoclonal
Clone	G3.1
Isotype	IgG1, kappa
Molecular weight	27 kDa
Synonyms	Heat shock 27kDa protein; Estrogen-regulated 24kDa protein; Heat shock 25kDa protein 1; Heat shock 28kDa protein 1; Heat shock protein beta-1; HMN2B; Hsp25; Hsp28; HspB1; Stress-responsive protein 27 (SRP27)
Human gene symbol	HSPB1
Entrez gene ID	3315
SwissProt	P04792
Unigene	520973
Immunogen	Partially purified hsp27 (earlier called 24K) protein from breast cancer MCF-7 cells.
Antibody target cellular localization	Cytoplasmic, Plasma membrane
Verified antibody applications	Flow (intracellular) (verified), IF (verified), IHC (FFPE) (verified), WB (verified)
Species reactivity	Chicken, Chimpanzee, Human, Monkey, Mouse, Rat, Sheep
Expected antibody applications	IP (published for clone)
Antibody application notes	Higher concentration may be required for direct detection using primary antibody conjugates than for indirect detection with secondary antibody, Immunofluorescence: 0.5-1 $\mu$ g/mL, Immunohistology formalin-fixed 0.5-1 $\mu$ g/mL, Staining of formalin-fixed tissues is enhanced by boiling tissue sections in 10 mM citrate buffer, pH 6.0, for 10-20 min followed by cooling at RT for 20 minutes, Flow Cytometry 0.5-1 $\mu$ g/million cells/0.1 mL, Western blotting 0.25-0.5 $\mu$ g/mL, Optimal dilution for a specific application should be determined by user
Positive control	~50% of Breast Carcinomas are positive for hsp27 especially those that are also positive for ER and/or PgR.
Shipping condition	Room temperature
Storage Conditions	Store at 2 to 8 °C, Protect fluorescent conjugates from light, Note: store BSA-free antibodies at -10 to -35 °C
Shelf life	Guaranteed for at least 24 months from date of receipt when stored as recommended
Regulatory status	For research use only (RUO)
Antibody/conjugate formulation	Conjugates: 0.1 mg/mL in PBS/0.1% BSA/0.05% azide, HRP conjugates: 0.1 mg/mL in PBS/0.05% BSA, Purified: 0.2 mg/mL in PBS/0.05% BSA/0.05% azide, Purified, BSA-free: 1 mg/mL in PBS without azide
Antibody research areas	Endocrinology, Heat shock proteins
Product origin	Product may contain either bovine serum albumin (BSA) from bovine serum (Bos taurus), or recombinant BSA produced in Chinese hamster ovary cells. Inquire for the specific lot.

Antibody # prefix	Conjugation	Ex/Em (nm)	Laser line	Detection channel	Dye Features
BNC04	CF®405S	404/431	405	DAPI (microscopy), AF405	<a href="#">CF®405S Features</a>
BNC88	CF®488A	490/515	488	GFP, FITC	<a href="#">CF®488A Features</a>
BNC68	CF®568	562/583	532, 561	RFP, TRITC	<a href="#">CF®568 Features</a>
BNC94	CF®594	593/614	561	Texas Red®	<a href="#">CF®594 Features</a>
BNC40	CF®640R	642/662	633-640	Cy®5	<a href="#">CF®640R Features</a>
BNC47	CF®647	650/665	633-640	Cy®5	<a href="#">CF®647 Features</a>
BNC74	CF®740	742/767	633-685	775/50	<a href="#">CF®740 Features</a>
BNCB	Biotin	N/A	N/A	N/A	
BNUB	Purified	N/A	N/A	N/A	
BNUM	Purified, BSA-free	N/A	N/A	N/A	

Alexa Fluor, Pacific Blue, Pacific Orange, and Texas Red are trademarks or registered trademarks of Thermo Fisher Scientific; Cy is a registered trademark of Cytiva; IRDye, LI-COR, and Odyssey are registered trademarks of LI-COR Bioscience.

### References

Note: References for this clone sold by other suppliers may be listed for expected applications.

Nat Comm (2018) 9: 1431. (immunoprecipitation; IHC, FFPE; flow, intracellular, proximity ligation assay)