

HSP27 Monoclonal Antibody (G3.1)

Product Details

Size	100 µL
Species Reactivity	Dog, Human, Non-human primate, Rat
Published Species	Rat, Human, Mouse
Host/Isotype	Mouse / IgG1
Class	Monoclonal
Type	Antibody
Clone	G3.1
Conjugate	Unconjugated
Immunogen	Partially purified human HSP27.
Form	Liquid
Concentration	Conc. Not Determined
Storage buffer	ascites
Contains	0.05% sodium azide
Storage conditions	-20° C, Avoid Freeze/Thaw Cycles
RRID	AB_325463

Applications	Tested Dilution	Publications
Western Blot (WB)	1:500-1:1,000	13 Publications
Immunohistochemistry (IHC)	-	13 Publications
Immunohistochemistry (Paraffin) (IHC (P))	1:500	-
Immunocytochemistry (ICC/IF)	1:500	1 Publication
ELISA (ELISA)	Assay-dependent	2 Publications
Immunoprecipitation (IP)	2 µL	3 Publications
Immunomicroscopy (IM)	Assay-dependent	-

Product Specific Information

MA3-015 detects heat shock protein 27 kDa (HSP27) from human, rat, mouse, monkey, and canine samples.

MA3-015 has been successfully used in Western blot, immunohistochemistry (paraffin), immunoprecipitation, immunofluorescence, immunocytochemistry and ELISA procedures. By Western blot, this antibody detects an ~24 kDa protein representing HSP27 in MCF-7 cell extract. Immunohistochemical staining of human cervix with MA3-015 results in intense cytoplasmic staining of the epithelium within the parabasal cell layer. Western blot detection of HSP27 in canine heart samples is weak and may require optimization.

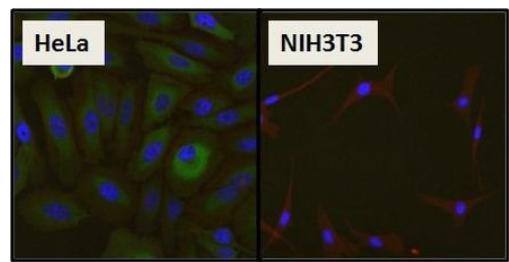
The MA3-015 antigen is partially purified HSP27 derived from MCF-7 cytosol. The mouse HSP27 sequence is strongly conserved within the human sequence, so cross-reactivity with mouse HSP27 is expected.

Antibodies to this protein (and modification) were previously sold as part of a Thermo Scientific Cellomics High Content Screening Kit. This replacement antibody is now recommended for researchers who need an antibody for high content cell based assays. It has been thoroughly tested and validated for cellular immunofluorescence (IF) applications. Further optimization including the selection of the most appropriate fluorescent Dylight conjugated secondary antibody may have to be performed for your high content assay.

Product Images For HSP27 Monoclonal Antibody (G3.1)

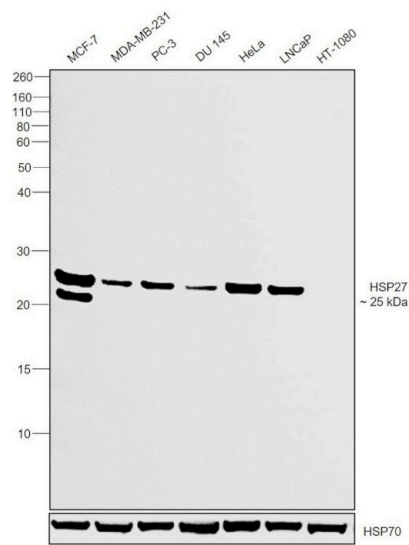
HSP27 Antibody (MA3-015) in ICC/IF

Immunofluorescent analysis of Heat Shock Protein 27 (HSP27) (green) in HeLa cells and negative control NIH3T3 cells. Formalin fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 10 minutes at room temperature and blocked with 1% Blocker BSA (Product # 37525) for 15 minutes at room temperature. Cells were probed with a HSP27 monoclonal antibody (Product # MA3-015), at a dilution of 1:50 for at least 1 hour at room temperature, washed with PBS, and incubated with DyLight 488 goat anti-mouse IgG secondary antibody (Product # 35502) at a dilution of 1:400 for 30 minutes at room temperature. F-Actin (red) was stained with DyLight 554 phalloidin (Product # 21834) and nuclei (blue) were stained with Hoechst 33342 dye (Product # 62249). Images were taken on a Thermo Scientific ArrayScan at 20X magnification.



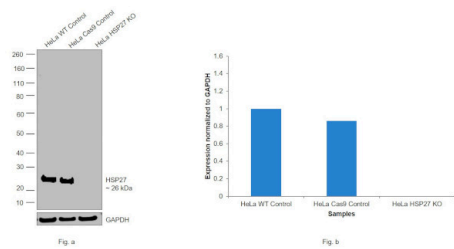
HSP27 Antibody (MA3-015)

Antibody specificity was demonstrated by detection of differential basal expression of the target across cell lines owing to their inherent genetic constitution. Relative expression of HSP27 was observed in MCF-7, MDA-MB-231, PC-3, DU 145, HeLa and LNCaP in comparison to HT-1080 using Anti-HSP27 Monoclonal Antibody (G3.1) (Product # MA3-015) in Western Blot. {RE}



HSP27 Antibody (MA3-015)

Antibody specificity was demonstrated by CRISPR-Cas9 mediated knockout of target protein. A loss of signal was observed for target protein in HSP27 KO cell line compared to control cell line using Anti-HSP27 Monoclonal Antibody (G3.1) (Product # MA3-015). {KO}



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Western Blot (13)

<p>Cancers</p> <p>The TLK1-MK5 Axis Regulates Motility, Invasion, and Metastasis of Prostate Cancer Cells.</p> <p>"MA3-015 was used in Western Blotting to support that the TLK1-MK5 axis is functionally involved in driving PCa cell metastasis and clinical aggressiveness; hence, disruption of this axis may inhibit the metastatic capacity of PCa."</p> <p>Authors: Khalil MI,De Benedetti A</p>	<p>Year 2022</p> <p>Species Human</p>
<p>Journal of biomedical science</p> <p>Cyanidin 3-O-arabinoside suppresses DHT-induced dermal papilla cell senescence by modulating p38-dependent ER-mitochondria contacts.</p> <p>"MA3-015 was used in Western Blot to investigate mechanisms of mitochondrial dysfunction in androgenetic alopecia."</p> <p>Authors: Jung YH,Chae CW,Choi GE,Shin HC,Lim JR,Chang HS,Park J,Cho JH,Park MR,Lee HJ,Han HJ</p>	<p>Year 2022</p> <p>Species Human</p>

View more WB references on thermofisher.com

Immunohistochemistry (13)

<p>European journal of surgical oncology : the journal of the European Society of Surgical Oncology and the British Association of Surgical Oncology</p> <p>Altered expression of HSP27 and HSP70 in distal oesophageal mucosa in patients with gastro-oesophageal reflux disease subjected to fundoplication.</p> <p>"MA3-015 was used in immunohistochemistry to investigate the effect of heat shock protein 27 and heat shock protein 70 on mucosal defence system of the distal oesophagus"</p> <p>Authors: Rantanen T,Honkanen T,Paavonen T,Rantanen L,Oksala N</p>	<p>Year 2011</p> <p>Species Human</p> <p>Dilution 1:400</p>
<p>Neurological research</p> <p>Spatiotemporal expression of Hsp20 and its phosphorylation in hippocampal CA1 pyramidal neurons after transient forebrain ischemia.</p> <p>"MA3-015 was used in immunohistochemistry to study the effect of transient forebrain ischemia on the expression and Phosphorylation of Hsp20 in hippocampal CA1 pyramidal neurons"</p> <p>Authors: Niwa M,Hara A,Taguchi A,Aoki H,Kozawa O,Mori H</p>	<p>Year 2009</p> <p>Species Mouse</p> <p>Dilution 1:500</p>

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More applications with references on thermofisher.com

- ICC/IF (1)
- ELISA (2)
- IP (3)

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