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HSP47 Antibody
HSP47 Antibody, Clone 1C4-1A6
Catalog # ASM10150

Specification

HSP47 Antibody - Product Information

Application	ICC/IF, WB
Primary Accession	P50454.2
Other Accession	NP_001193943
Host	Mouse
Isotype	IgG1 Kappa
Reactivity	Human
Clonality	Monoclonal

Description
Mouse Anti-Human HSP47 Monoclonal IgG1 Kappa

Target/Specificity
Detects 47kDa.

Other Names
SerpinH1 Antibody, Colligin Antibody, Gp46 Antibody, serine proteinase inhibitor Antibody, cysteine proteinase inhibitor Antibody, collagen binding protein Antibody

Immunogen
Human HSP47, full length

Purification
Protein G Purified

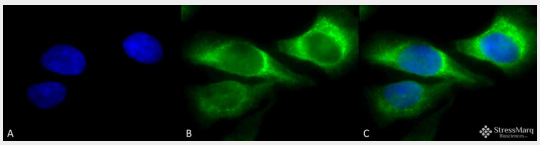
Storage	-20ºC

Storage Buffer
PBS pH7.4, 50% glycerol, 0.09% sodium azide

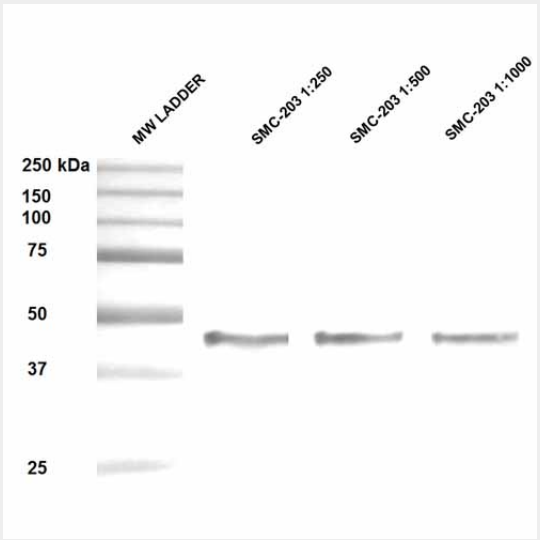
Shipping Temperature	Blue Ice or 4ºC

Certificate of Analysis
1 µg/ml of SMC-203 was sufficient for detection of HSP47 in 20 µg of heat shocked HeLa cell lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Cellular Localization
Endoplasmic Reticulum | Endoplasmic Reticulum Lumen



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Hsp47 Monoclonal Antibody, Clone 1C4-1A6 (ASM10150). Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Mouse Anti-Hsp47 Monoclonal Antibody (ASM10150) at 1:100 for 12 hours at 4°C. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Endoplasmic reticulum lumen. Cytoplasm. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-Hsp47 Antibody. (C) Composite.



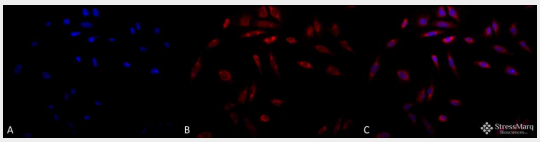
Western Blot analysis of Human Epithelial cell (A431) lysates showing detection of ~47 kDa Hsp47 protein using Mouse Anti-Hsp47 Monoclonal Antibody, Clone 1C4-1A6 (ASM10150). Lane 1: MW ladder. Lane 2: Anti-Hsp47 (1:250). Lane 3: Anti-Hsp47 (1:500). Lane 4: Anti-Hsp47 (1:1000). Load: 20 µg. Block: 5% milk + TBST for 1 hour at

HSP47 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

RT. Primary Antibody: Mouse Anti-Hsp47 Monoclonal Antibody (ASM10150) at 1:250 - 1:1000 for 1 hour at RT. Secondary Antibody: HRP Goat Anti-Mouse at 1:50 for 1 hour at RT. Color Development: TMB solution for 10 min at RT. Predicted/Observed Size: ~47 kDa.



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Hsp47 Monoclonal Antibody, Clone 1C4-1A6 (ASM10150). Tissue: Heat Shocked HeLa Cells. Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Mouse Anti-Hsp47 Monoclonal Antibody (ASM10150) at 1:100 for 12 hours at 4°C. Secondary Antibody: APC Goat Anti-Mouse (red) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Endoplasmic reticulum lumen. Cytoplasm. Magnification: 20x. (A) DAPI (blue) nuclear stain. (B) Anti-Hsp47 Antibody. (C) Composite.

HSP47 Antibody - Background

HSP47 is a chaperone protein, member of the superfamily of serine proteinase inhibitors. Also known as SERPINH1, a serine proteinase inhibitor. It is a stress protein that resides in the endoplasmic reticulum, has an active role on the intracellular process of folding, assembly and secretion of pro-collagens. Recent studies have shown the association of on an increased expression of HSP47 around fibrotic lesions (1).
The identification of a novel biomarker on cell therapies aimed to reduce the progression of fibrotic diseases, could be used potentially as a universal marker, since HSP47 binds a single substrate (2). Type I collagen is fundamental during the healing process after a myocardial infarction. It is critical in the position of collagen-produced cells and the assembly of collagen fibrils (3).

HSP47 Antibody - References

1. Razzaque MS., Taquchi T., (1999) Histol Histopathol. 14 (4): 1999-212.

2. Taguchi T., et al. (2011) Acta Histochem Cytochem. 44(2):35-41.
3. Nong Z., et al. (2011) Am J Pathol. 197(5): 2189-96.