

## Basic Information

<b>Product Name</b>	Anti-HSP70/HSPA1A Antibody (Clone#OTI2C12)		
<b>Gene Name</b>	HSPA1A		
<b>Source</b>	Mouse		
<b>Isotype</b>	IgG1		
<b>Species Reactivity</b>	human,mouse,rat,monkey		
<b>Tested Application</b>	WB,IHC,ICC/IF,FCM		
<b>Contents</b>	PBS (pH 7.3) containing 1% BSA, 50% glycerol and 0.02% sodium azide.		
<b>Immunogen</b>	Full length human recombinant protein of human HSPA1A (NP_005336) produced in HEK293T cell.		
<b>concentration</b>	500 ug/ml		
<b>Purification</b>	Purified from mouse ascites fluids or tissue culture supernatant by affinity chromatography (protein A/G)		
<b>Observed MW</b>	70KD		
<b>Dilution Ratios</b>	Western blot (WB):	1:2000	
	Immunohistochemistry in paraffin section (IHC):	1:50	
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:100	
	Flow cytometry (FCM):	1:100	

## Storage

Stable for 12 months from date of receipt. Store at -20°C as received.

## Background Information

This intronless gene encodes a 70kDa heat shock protein which is a member of the heat shock protein 70 family. In conjunction with other heat shock proteins, this protein stabilizes existing proteins against aggregation and mediates the folding of newly translated proteins in the cytosol and in organelles. It is also involved in the ubiquitin-proteasome pathway through interaction with the AU-rich element RNA-binding protein 1. The gene is located in the major histocompatibility complex class III region, in a cluster with two closely related genes which encode similar proteins.

## Selected Validation Data

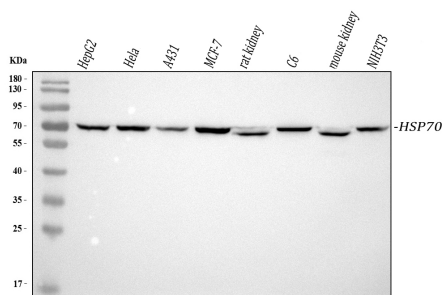


Figure 1. Western blot analysis of anti-HSP70/HSPA1A antibody (MA00949). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HepG2 whole cell lysates,  
Lane 2: human Hela whole cell lysates,  
Lane 3: human A431 whole cell lysates,  
Lane 4: human MCF-7 whole cell lysates,  
Lane 5: rat kidney tissue lysates,  
Lane 6: rat C6 whole cell lysates,  
Lane 7: mouse kidney whole cell lysates,  
Lane 8: mouse NIH/3T3 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with mouse anti-HSP70/HSPA1A antigen affinity purified polyclonal antibody (MA00949) and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for HSP70/HSPA1A at approximately 70 kDa. The expected band size for HSP70/HSPA1A is at 70 kDa.

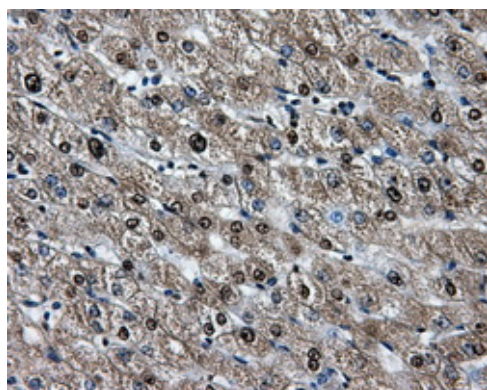


Figure 2. Immunohistochemical staining of paraffin-embedded liver tissue within the normal limits using anti-HSPA1A mouse monoclonal antibody. (Heat-induced epitope retrieval by 10mM citric buffer, pH6.0, 100°C for 10min, MA00949, Dilution 1:50)

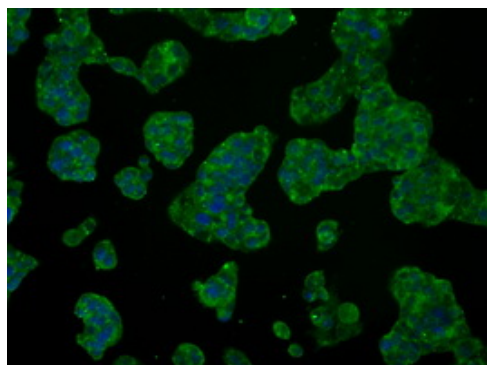


Figure 4. Immunofluorescent staining of HepG2 cells using anti-HSPA1A mouse monoclonal antibody (1:50).

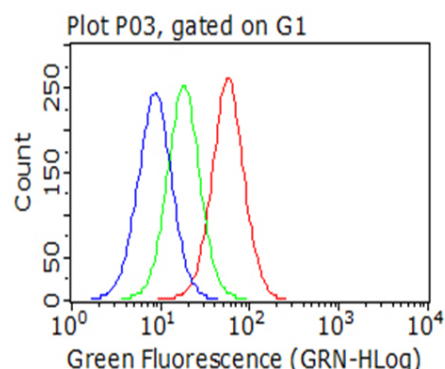


Figure 6. Flow cytometric analysis of permeabilized Hela cells, using anti-HSPA1A antibody, compared to an isotype control (green), and a PBS control (blue) (1:100).