

Basic Information

Product Name	Anti-HSPH1 Antibody	
Gene Name	HSPH1	
Source	Rabbit	
Clonality	Polyclonal	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, ICC/IF, FCM, ELISA	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E. coli-derived human Hsp105 recombinant protein (Position: Y653-D858).	
Concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	105 kDa	
Dilution Ratios	Western blot (WB):	1:500-2000
	Immunohistochemistry (IHC):	1:50-400
	Immunocytochemistry/Immunofluorescence (ICC/IF):	1:50-400
	Flow Cytometry (Fixed):	1:50-200
	Enzyme linked immunosorbent assay (ELISA):	1:100-1000
	(Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

HSP105 (HEAT-SHOCK 105/110-KD PROTEIN 1), also called HSPH1 or HSP110, is a protein that in humans is encoded by the HSPH1 gene. Immunohistochemical analysis localizes HSP105 mainly in the cytoplasm. Database analysis indicates that both HSP105 isoforms are highly conserved during evolution. By analysis of radiation hybrids and human/rodent hybrid cell lines, the HSPH1 gene is mapped to chromosome 13. Both HSP105-alpha and HSP105-beta are upregulated in HeLa cells exposed to heat shock. HSP105-alpha, but not HSP105-beta, is also upregulated in response to other cell stresses. Following heat shock, HSP105 relocates from a cytoplasmic to perinuclear position. Besides, HSP110 may thus constitute a major determinant for both prognosis and treatment response in colorectal cancer.

Selected Validation Data

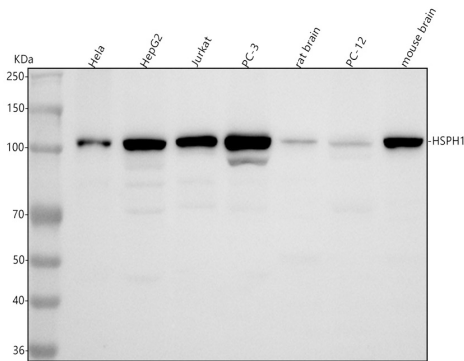


Figure 1. Western blot analysis of HSPH1 using anti-HSPH1 antibody (A04168). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human Hela whole cell lysates,
Lane 2: human HepG2 whole cell lysates,
Lane 3: human Jurkat whole cell lysates,
Lane 4: human PC-3 whole cell lysates,
Lane 5: rat brain tissue lysates,
Lane 6: rat PC-12 whole cell lysates,
Lane 7: mouse brain tissue lysates.

After electrophoresis, proteins were transferred to a membrane. Then the membrane was incubated with rabbit anti-HSPH1 antigen affinity purified polyclonal antibody (A04168) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for HSPH1 at approximately 105 kDa. The expected band size for HSPH1 is at 97 kDa.

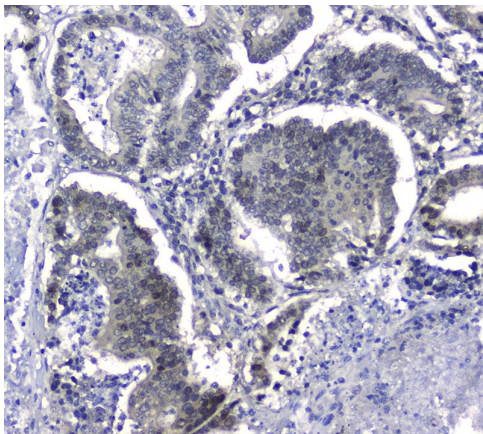


Figure 3. IHC analysis of HSPH1 using anti-HSPH1 antibody (A04168).

HSPH1 was detected in a paraffin-embedded section of human intestinal cancer tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was incubated with rabbit anti-HSPH1 Antibody (A04168) at a dilution of 1:200 and developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB (Catalog # AR1027) as the chromogen.

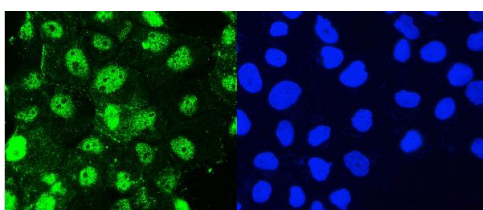


Figure 6. IF analysis of HSPH1 using anti-HSPH1 antibody (A04168). HSPH1 was detected in an immunocytochemical section of U2OS cells. The section was incubated with rabbit anti-HSPH1 Antibody (A04168) at a dilution of 1:100. DyLight[®] 488 Conjugated Goat Anti-Rabbit IgG (Green) (Catalog # BA1127) was used as secondary

antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).

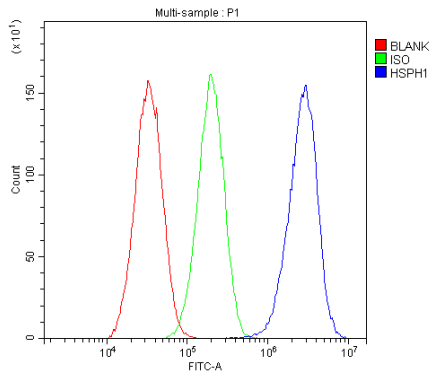


Figure 7. Flow Cytometry analysis of HepG2 cells using anti-HSPH1 antibody (A04168).

Overlay histogram showing HepG2 cells stained with A04168 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-HSPH1 Antibody (A04168) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.