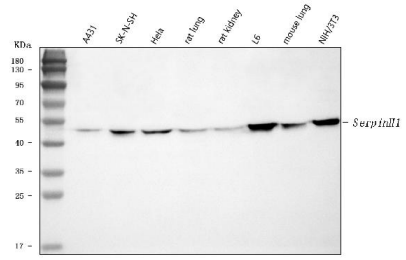
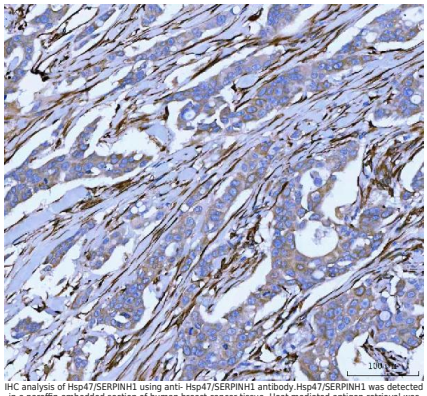
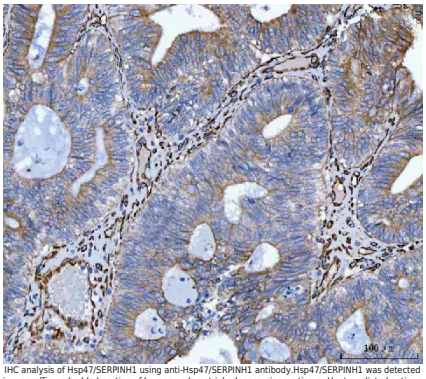
Product name:	Anti-Hsp47/SERPINH1 Rabbit Polyclonal Antibody
Cat number:	AB-84783
Conjugate:	Unconjugated
Size:	200 ug
Clone:	POLY
Concentration:	1mg/ml
Host:	Rabbit
Isotype:	IgG
Immunogen:	E.coli-derived human Hsp47 recombinant protein (Position: D247-L418). Human Hsp47 shares 97% amino acid (aa) sequence identity with both mouse and rat Hsp47.
Reactivity:	Human, Mouse, Rat
Applications:	Western blot: 0.1-0.5ug/ml Immunohistochemistry (Paraffin-embedded Section): 2-5ug/ml
Molecular Weight:	46 kDa
Purification:	Immunogen affinity purified
Form:	Lyophilized
Buffer:	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
Storage:	Store at -20˚C for one year from date of receipt. After reconstitution, at 4˚C for one month. It can also be aliquotted and stored frozen at -20˚C for six months. Avoid repeated freeze-thaw cycles
Background:	Heat shock protein 47, also known as SERPINH1 or HSP47, is a serpin which serves as a human chaperone protein for collagen. This protein is a member of the serpin superfamily of serine proteinase inhibitors. Its expression is induced by heat shock. The protein localizes to the endoplasmic reticulum lumen and binds collagen; thus it is thought to be a molecular chaperone involved in the maturation of collagen molecules. Autoantibodies to this protein have been found in patients with rheumatoid arthritis. It has been found that HSP47 monitors the integrity of the triple helix of type I procollagen at the ER/cis-Golgi boundary and, when absent, the rate of transit from the ER to the Golgi is increased and the helical structure is compromised.



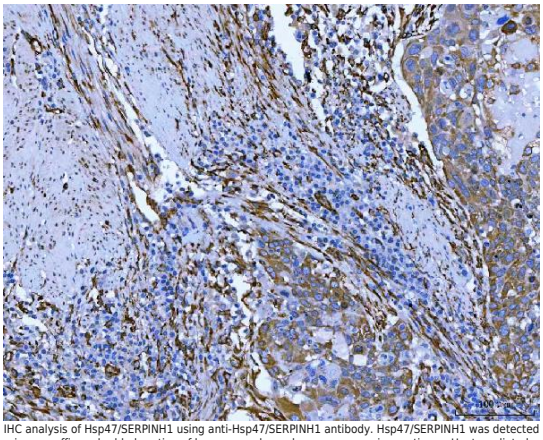
Western blot analysis of Hsp47/SERPINH1 using anti-Hsp47/SERPINH1 antibody. Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions. Lane 1: human A431 whole cell lysates, Lane 2: human SK-N-SH whole cell lysates, Lane 3: human Hela whole cell lysates, Lane 4: rat lung tissue lysates, Lane 5: rat kidney tissue lysates, Lane 6: rat L6 whole cell lysates, Lane 7: mouse lung tissue lysates, Lane 8: mouse NIH/3T3 whole cell lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti- Hsp47/SERPINH1 antigen affinity purified polyclonal antibody at 0.5 ug/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:5000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit with Tanon 5200 system. A specific band was detected for Hsp47/SERPINH1 at approximately 46 kDa. The expected band size for Hsp47/SERPINH1 is at 46 kDa.



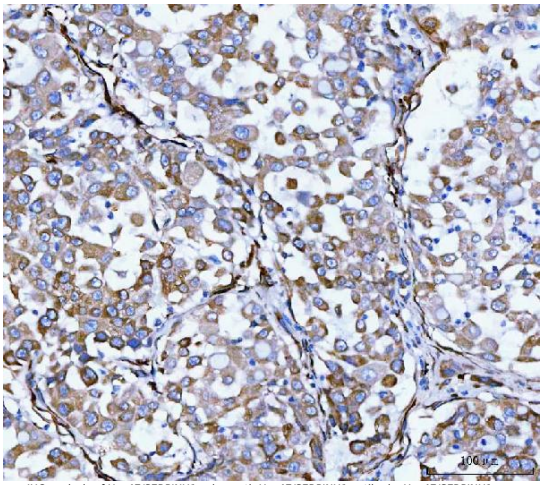
IHC analysis of Hsp47/SERPINH1 using anti- Hsp47/SERPINH1 antibody.Hsp47/SERPINH1 was detected in a paraffin-embedded section of human breast cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Hsp47/SERPINH1 Antibody overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.



IHC analysis of Hsp47/SERPINH1 using anti-Hsp47/SERPINH1 antibody.Hsp47/SERPINH1 was detected in a paraffin-embedded section of human endometrial adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Hsp47/SERPINH1 Antibody overnight at 4°C. Peroxidase Conjugated Goat Antirabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.



IHC analysis of Hsp47/SERPINH1 using anti-Hsp47/SERPINH1 antibody. Hsp47/SERPINH1 was detected in a paraffin-embedded section of human esophageal squamous carcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Hsp47/SERPINH1 Antibody overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.



IHC analysis of Hsp47/SERPINH1 using anti- Hsp47/SERPINH1 antibody. Hsp47/SERPINH1 was detected in a paraffin-embedded section of human lung adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-Hsp47/SERPINH1 Antibody overnight at 4°C. Peroxidase Conjugated Goat Antirabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit with DAB as the chromogen.