

Anti-MASPIN Antibody Picoband™ (monoclonal, 7G4E1)

Catalog # ABO16256

Product Information

Application	WB, IHC, FC
Primary Accession	P36952
Host	Mouse
Isotype	Mouse IgG2a
Reactivity	Human
Clonality	Monoclonal
Format	Lyophilized
Description	Anti-MASPIN Antibody Picoband™ (monoclonal, 7G4E1) . Tested in Flow Cytometry, IHC, WB applications. This antibody reacts with Human.
Reconstitution	Adding 0.2 ml of distilled water will yield a concentration of 500 µg/ml.

Additional Information

Gene ID	5268
Other Names	Serpin B5, Maspin, Peptidase inhibitor 5, PI-5, SERPINB5, PI5
Calculated MW	42100
Application Details	Western blot, 0.25-0.5 µg/ml, Human Immunohistochemistry(Paraffin-embedded Section), 2-5 µg/ml, Human Flow Cytometry, 1-3 µg/1x10 ⁶ cells, Human
Source	Eukaryota
Contents	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
Clone Names Immunogen	Clone: 7G4E1 E.coli-derived human MASPIN recombinant protein (Position: M1-A350). Human MASPIN shares 88% and 89% amino acid (aa) sequence identity with mouse and rat MASPIN, respectively.
Purification	Immunogen affinity purified.
Storage	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 freezing and thawing.

Protein Information

Name	SERPINB5
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Synonyms	PI5
Function	Tumor suppressor. It blocks the growth, invasion, and metastatic properties of mammary tumors. As it does not undergo the S (stressed) to R (relaxed) conformational transition characteristic of active serpins, it exhibits no serine protease inhibitory activity.
Cellular Location	Secreted, extracellular space.
Tissue Location	Normal mammary epithelial cells.

Background

SERPINB5 is also known as PI5 or maspin. Maspin (mammary serine protease inhibitor) is a protein that in humans is encoded by the SERPINB5 gene. Maspin is expressed in the skin, prostate, testis, intestine, tongue, lung, and the thymus. Maspin is a member of the serpin superfamily of serine protease inhibitors.[1] The primary function of most members of this family is to regulate the breakdown of proteins by inhibiting the catalytic activity of proteinases. Through this mechanism of action, serpins regulate a number of cellular processes including phagocytosis, coagulation, and fibrinolysis.

Images

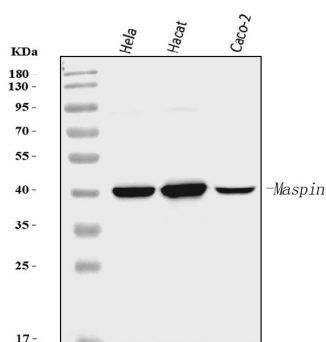


Figure 1. Western blot analysis of MASPIN using anti-MASPIN antibody (M03409).

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 HeLa whole cell lysates,
Lane 2: human Hacat whole cell lysates,
Lane 3: human Caco-2 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 mouse anti-MASPIN antigen affinity purified monoclonal antibody (Catalog # M03409) at 0.5 µg/mL overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-mouse IgG-HRP secondary antibody at a dilution of 1:10000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1001) with Tanon 5200 system. A specific band was detected for MASPIN at approximately 42 kDa. The expected band size for MASPIN is at 42 kDa.

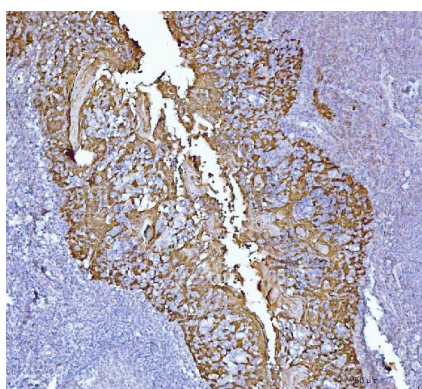


Figure 2. IHC analysis of MASPIN using anti-MASPIN antibody (M03409).

MASPIN was detected in a paraffin-embedded section of human tonsil 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 µg/ml mouse anti-MASPIN Antibody (M03409) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using

HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

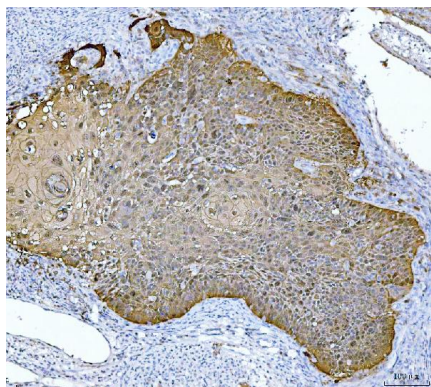


Figure 3. IHC analysis of MASPIN using anti-MASPIN antibody (M03409).

MASPIN was detected in a paraffin-embedded section of human laryngeal squamous cell 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 µg/ml mouse anti-MASPIN Antibody (M03409) overnight at 4°C. Peroxidase Conjugated Goat Anti-mouse IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB as the chromogen.

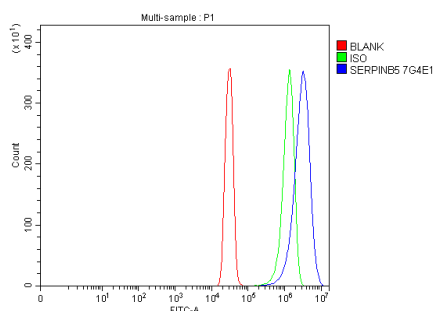


Figure 4. Flow Cytometry analysis of SiHa cells using anti-MASPIN antibody (M03409).

Overlay histogram showing SiHa cells stained with M03409 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-MASPIN Antibody (M03409, 1 µg/1x10⁶ cells) for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126, 5-10 µg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG (1 µg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

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