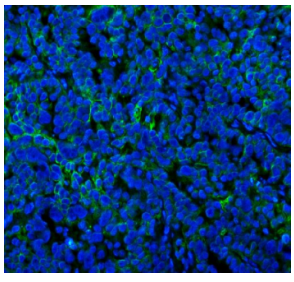
SPA17 Antibody / Sperm autoantigenic protein 17 (FY13291)

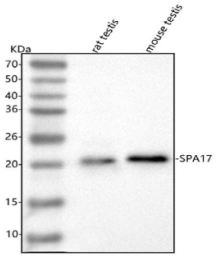
Catalog No.	Formulation	Size
FY13291	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml	100 ug

Bulk quote request

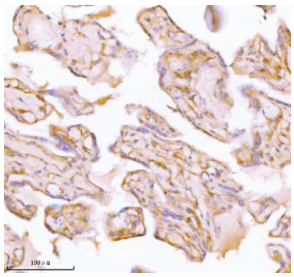
Availability	1-2 days
Species Reactivity	Human, Mouse, Rat
Format	Lyophilized
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit IgG
Purity	Immunogen affinity purified
Buffer	Each vial contains 4 mg Trehalose, 0.9 mg NaCl, 0.2 mg Na2HPO4.
UniProt	Q15506
Localization	Cytoplasm (Golgi), cell memebrane
Applications	ELISA: 0.1-0.5ug/ml Immunofluorescence: 5ug/ml Immunohistochemistry: 2-5ug/ml Western Blot: 0.25-0.5ug/ml
Limitations	This SPA17 antibody is available for research use only.



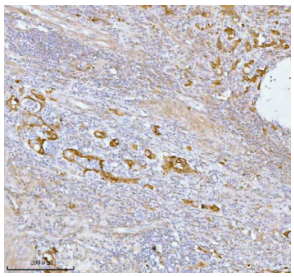
Immunofluorescent staining of SPA17 using anti-SPA17 antibody (green). SPA17 was detected in a paraffin-embedded section of human ovarian tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 5 ug/ml rabbit anti-SPA17 antibody overnight at 4oC. FITC Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37oC. The section was counterstained with DAPI nuclear stain (blue). Visualize using a fluorescence microscope and filter sets appropriate for the label used.



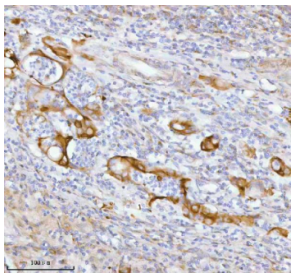
Western blot analysis of SPA17 using anti-SPA17 antibody. Lane 1: rat testis tissue lysates, Lane 2: mouse testis tissue lysates. After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-SPA17 antibody at 0.5 ug/ml overnight at 4oC, 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 was developed using enhanced chemiluminescent. A single band is detected at an approximately 20 kDa in both species, running slightly above the predicted ~17 kDa mass but consistent with the apparent molecular weight of the glycosylated endogenous SPA17 protein in testis.



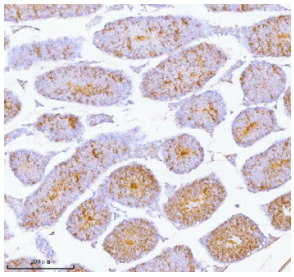
Immunohistochemical staining of SPA17 using anti-SPA17 antibody. SPA17 was detected in a paraffin-embedded section of human placenta tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SPA17 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



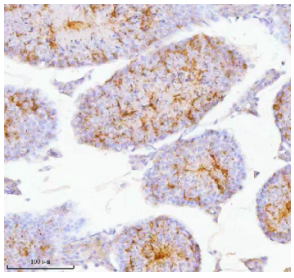
Immunohistochemical staining of SPA17 using anti-SPA17 antibody. SPA17 was detected in a paraffin-embedded section of human rectum adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SPA17 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



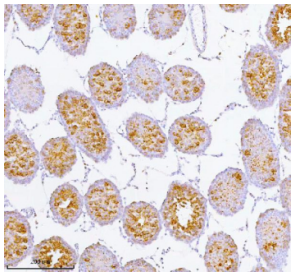
Immunohistochemical staining of SPA17 using anti-SPA17 antibody. SPA17 was detected in a paraffin-embedded section of human rectum adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SPA17 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



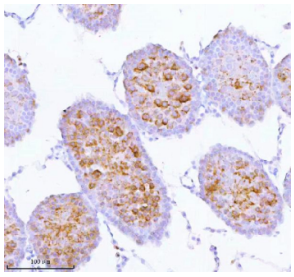
Immunohistochemical staining of SPA17 using anti-SPA17 antibody. SPA17 was detected in a paraffin-embedded section of mouse testis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SPA17 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



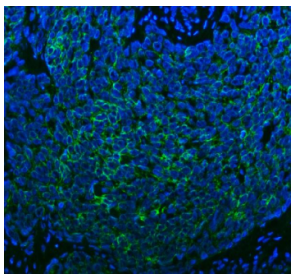
Immunohistochemical staining of SPA17 using anti-SPA17 antibody. SPA17 was detected in a paraffin-embedded section of mouse testis tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 2 ug/ml rabbit anti-SPA17 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



Immunohistochemical staining of SPA17 using anti-SPA17 antibody. SPA17 was detected in a paraffin-embedded section of rat testis 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-SPA17 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



Immunohistochemical staining of SPA17 using anti-SPA17 antibody. SPA17 was detected in a paraffin-embedded section of rat testis 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-SPA17 antibody overnight at 4oC. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37oC. The tissue section was developed using an HRP secondary and DAB substrate.



Immunofluorescent staining of SPA17 using anti-SPA17 antibody (green). SPA17 was detected in a paraffin-embedded section of human cervical 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 5 ug/ml rabbit anti-SPA17 antibody overnight at 4oC. FITC Conjugated Goat Anti-Rabbit IgG was used as secondary antibody at 1:500 dilution and incubated for 30 minutes at 37oC. The section was counterstained with DAPI nuclear stain (blue). Visualize using a fluorescence microscope and filter sets appropriate for the label used.

Description

SPA17 antibody recognizes Sperm autoantigenic protein 17, a testis-enriched protein encoded by the SPA17 gene that is involved in sperm motility, fertilization, and cell adhesion. SPA17 is expressed primarily in the acrosomal region of mature spermatozoa and in ciliated epithelial tissues, where it contributes to cell-cell interaction and immune recognition processes. The protein contains an N-terminal sperm-coating antigen domain and a C-terminal region homologous to the heat shock protein family, suggesting a chaperone-like role in maintaining sperm surface protein stability.

SPA17 was initially identified as an autoantigen in patients with infertility and autoimmune disorders, reflecting its immunogenic nature. It is also classified as a cancer-testis antigen due to its restricted normal expression in testicular tissue and aberrant expression in various malignancies, including ovarian, prostate, and lung cancers. This re-expression in tumors has made SPA17 a target of interest for cancer immunotherapy and tumor biomarker research. Functionally, SPA17 promotes sperm-egg interaction by binding to carbohydrate residues on the zona pellucida and may participate in intracellular signaling during acrosomal exocytosis.

The SPA17 gene is located on chromosome 11q24.2 and encodes a 151-amino acid protein that forms homodimers. The protein associates with the outer acrosomal membrane and flagellar structures, supporting motility and fertilization capacity. Beyond reproduction, SPA17 has been detected in immune and neural tissues, where it may modulate cAMP-mediated signaling pathways. Studies have shown SPA17 interaction with protein kinase A (PKA) regulatory subunits, linking it to cellular adhesion and signal transduction.

Immunohistochemical analysis using SPA17 antibody reveals strong staining in testis, epididymis, and certain tumor tissues. The antibody is widely used to investigate sperm biology, fertility disorders, and tumor immunogenicity. SPA17 antibody from NSJ Bioreagents provides a reliable reagent for studying reproductive protein function and cancer-testis antigen expression in diverse research applications

Application Notes

Optimal dilution of the SPA17 antibody should be determined by the researcher.

Immunogen

E.coli-derived human SPA17 recombinant protein (Position: M1-K136) was used as the immunogen for the SPA17 antibody.

Storage

After reconstitution, the SPA17 antibody can be stored for up to one month at 4oC. For long-term, aliquot and store at -20oC. Avoid repeated freezing and thawing.

Copyright © NSJ Bioreagents. All rights reserved.