Bio Academia
Manufacturer

AS ONE

Anti-SPESP1 antibody, rabbit polyclonal, KO Validated

Cat.#73-065; Size:100 µl

Background:

The disruption of *Spesp1* was shown to cause an aberrant distribution of various sperm proteins. SPESP1 is necessary to produce the fully 'fusion competent' sperm.

Molecular mass: 44,702 with 399 amino acids. N-Glycosylated. N-terminal signal peptide (1-19) is removed in mature protein.

Key words: SPESP1, Sperm equatorial segment protein 1, Acrosome reaction, Sperm, Fertilization,

Specifications:

Reactivity: Mouse. Not tested in other species.

Validation: Specificity validated with KO mouse (Fig.2)

Immunogen: Synthetic peptide corresponding to mouse SPESP1, MYGSNVFPEGRTSD (311-325 amino acids), conjugated with KLH

Form: Whole rabbit antiserum added with 0.1% sodium azide.

Storage: Shipped at 4℃ and aliquot and store at -20℃

Applications:

- Western blotting (1/500~1/1,000 dilution)
- Immunofluorescence staining (1/100~1/500)

Database Links: uniprot/Q9D5A0 Mouse SPESP1

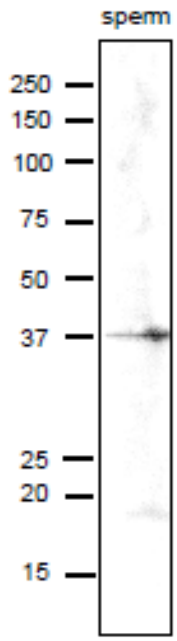

Fig. 1. Identification of SPESP1 protein in lysate of mouse sperm by western blotting with anti-SPESP1 antibody. Mouse sperm was lyzed in lysis buffer containing 1% Triton-X100 and extracts were prepared as supernatants of lysates after centrifugation. Proteins in the lysate were separated on SDS-PAGE (10~20% gradient gel), electro-blotted to PVDF membrane and reacted with anti-SPESP1 antibody at 1/1,000 dilution. As the second antibody, anti-rabbit IgG antibody conjugated with HRP (Abcam; ab97051) was used at 1/10,000.

Reference: This antibody was described and used in the following publication.

1. Fujihara Y. et al. (2010) Sperm equatorial segment protein 1, SPESP1, is required for fully fertile sperm in mouse. J Cell Sci. 123:1531-6. **WB, IF.** Free access.

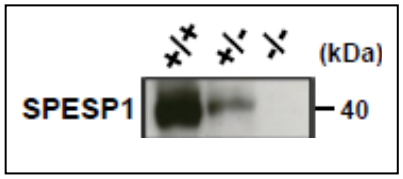

Fig.2 Dose dependent expression of SPESP1 protein in wild-type (+/+), heretoallelic (+/-) and knock-out (-/-) mouse sperm. Primary antibody was used at 1/500 dilution and 2nd antibody was at 1/10,000.

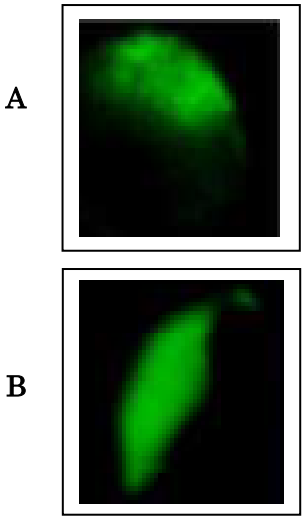

Fig.3. Immunofluorescence staining of mouse SPESP1 with anti-SPESP1 antibody.

A. Round spermatid

B. Epididymal sperm

As secondary antibody, Alexa Fluor 488 conjugated anti-rabbit IgG antibody was used.