

## Anti-PMIS2 antibody, rabbit polyclonal, KO-Validated

Cat.#73-055, Size:100 µl

### Background:

PMIS2 might function both as the ultimate factor regulating sperm transport into the oviducts and in modulating sperm–zona binding.

**Molecular mass:** 11,040 with 96 amino acids. Likely to be N-glycosylated

**Expression:** Testis and sperm. Not expressed in other organs

**Key words:** Pmis2, Sperm, Fertilization,

### Specifications:

**Validation:** Specificity has been validated with KO mouse (Fig.1)

**Reactivity:** mouse

**Immunogen:** Synthetic peptide corresponding to mouse PMIS2 (amino acids 61-80),  
CSNWEDAYRNSSRTMWFNML, conjugated with KLH

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

**Storage:** Shipped at 4°C and store at -20°C.

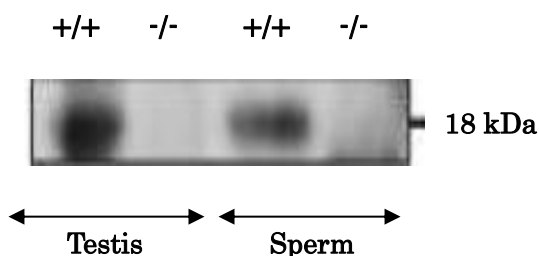
### Applications:

- Western blotting (1/1,000 dilution)
- Immunohistochemistry (1/1,000 dilution)

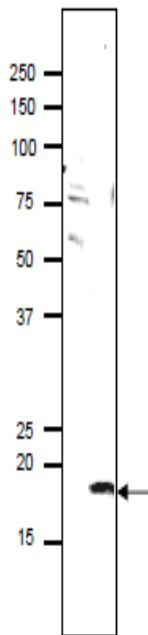
**Database Links:** [uniprot/Q497Q9](https://www.uniprot.org/entry/Q497Q9) mouse Pmis2.

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

1. Yamaguchi R. et al. (2012) Mice expressing aberrant sperm-specific protein PMIS2 produce normal-looking but fertilization-incompetent spermatozoa. [Mol Biol Cell](https://doi.org/10.1093/molbev/23.2671-9). 23:2671-9. **WB**.

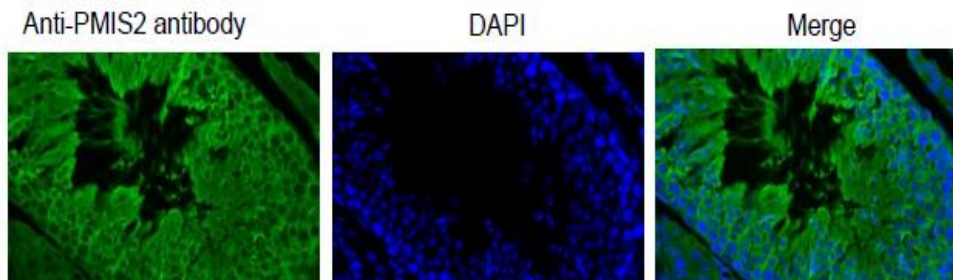


**Fig. 1. Analysis of PMIS2 protein expression in the lysates of testis and sperm from wild-type (+/+) and *Pmis2* knockout (-/-) mice by western blotting with anti-PMIS2 antibody.** Testes and sperm were lysed in lysis buffer containing 1% Triton-X100 and extracts were prepared as supernatants of lysates after centrifugation. Samples were reacted with anti-PMIS2 antibody at 1/1,000 dilution. The difference in predicted molecular mass (11 kDa) and the band position (18 kDa) of PMIS protein might be due to glycosylation.



**Fig.2 Identification of PMIS2 protein in the lysate of mouse sperm by western blotting with anti-PMIS2 antibody.**

Proteins in the lysate was separated on SDS-PAGE (10~20% gradient gel), electro-blotted to PVDF membrane and incubated in anti-PMIS2 antibody at 1/1,000 dilution. As the second antibody, goat anti-rabbit IgG antibody conjugated with HRP (Abcam; ab97051) was used at 1/10,000 dilution. The numbers on the right are positions of molecular size markers in kDa. The arrow indicates the position of PMIS2 protein.



**Fig.3 Immunohistochemical analysis of paraffin embedded mouse testis tissue with PDILT antibody**

Deparaffinization LemosolRA (#122-03991,Wako, Osaka)

Rehydration by ethanol

Antigen retrieval Histo/Zyme (Cat.# k046; Diagnostic BioSystems, California))

Washing PBST (0.25% triton X-100/PBS-)

Blocking 10 % FBS / PBST 30 min

1st antibody 1/1,000 dilution in PBS- 4°C O/N

Washing PBS-

2nd antibody Goat anti-rabbit IgG Alexa Fluor 488 conjugated,  
1,000 dilution, 60 min

Washing PBS- 5 min X 3

DAPI 1.0µg/mL DAPI in TBS 10 min