Anti-IZUMO1 antibody, rabbit serum

Product code	73-042
Size	100 µl
Storage	Store 4℃ for short term For long term storage store at -20℃. Aliquot to avoid repeated freezing and thawing.
Concentration	N/A
Buffer	0.1% sodium azide
Purity	Rabbit antiserum
Immunogen	KLH-conjugated synthetic peptides corresponding to the following three regions of human IZUMO 1. [A] C+KSLEKDYLPGHLDA [B] C+TQVPKEKATDSRQQ [C] C+ATTESSISLQPLQ
Isotype	Rabbit IgG
Reactivity	Human and mouse. Not tested with other species.
Special notes	N/A
Application	1. Western blotting (1/1,000 dilution) 2. Immunofluorescence staining (1/100~1/300 dilution) 3. Immunohistochemistry (1/100 dilution) 4. Inhibition of sperm fusion with egg
Background	Essential sperm cell-surface protein required for fertilization by acting as a ligand for FOLR4/JUNO receptor on egg. The IZUMO1:FOLR4/JUNO interaction is a necessary adhesion event between sperm and egg that is required for fertilization but is not sufficient for cell fusion. The ligand-receptor interaction probably does not act as a membrane 'fusogen' Molecular mass: 44,885 Da with 307 amino acids. Post-translational modification; Processing of N-terminal signal peptide with 21 amino acids. N-Glucosylation and phosphorylation. Expression: This gene has expression in 4 organs : EMAPA:18202: epidermis , EMAPA:16105: heart , MA:0000412: seminiferous tubule , MA:0000411: testis
Data Link	UniProtKB Q8IYV9 (human IZUMO1), UniProtKB Q9D9J7 (mouse IZUMO1)

Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.

BioAcademia,Inc. Tel. 81-6-6877-2335 Fax. 81-6-6877-2336 info@bioacademia.co.jp https://www.bioacademia.co.jp/en/

Data Images: Anti-IZUMO1 antibody, rabbit serum

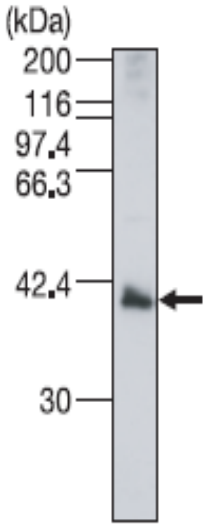

Fig.1 Identification of IZUMO1 protein in the lysate of human sperm by western blotting with anti-IZUMO1 antibody.

Proteins in the lysate (20 μg) was separated on SDS-PAGE, blotted to PVDF membrane and reacted with anti-human IZUMO1 antibody at 1/1,000 dilution.

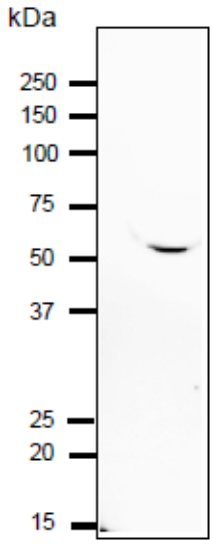

Fig.2 Analysis of IZUMO1 protein in the lysates of mouse sperm by western blotting with polyclonal anti- IZUMO1 antibody.

Proteins in the lysates (10 μg) was separated on SDS-PAGE (10~20% gradient gel), blotted to PVDF membrane and reacted with the polyclonal anti-IZUMO1 antibody at 1/1,000 dilution.

BioAcademia,Inc. Tel. 81-6-6877-2335 Fax. 81-6-6877-2336 info@bioacademia.co.jp https://www.bioacademia.co.jp/en/

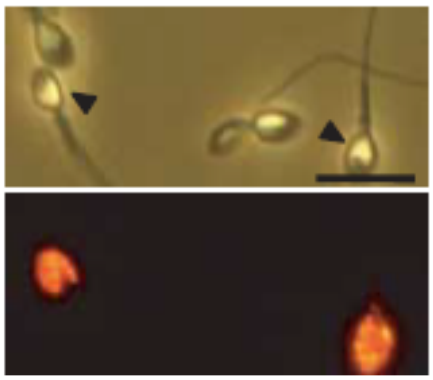

Fig.3 Immunostaining of IZUMO1 in human sperm using polyclonal anti-IZUMO1 antibody.

Human sperm on slide was incubated with polyclonal anti-IZUMO1 antibody at 1/100 dilution and reacted with a second antibody, Alexa Fluor 594-conjugated anti-rabbit IgG antibody at 1/1,000 (lower panel).

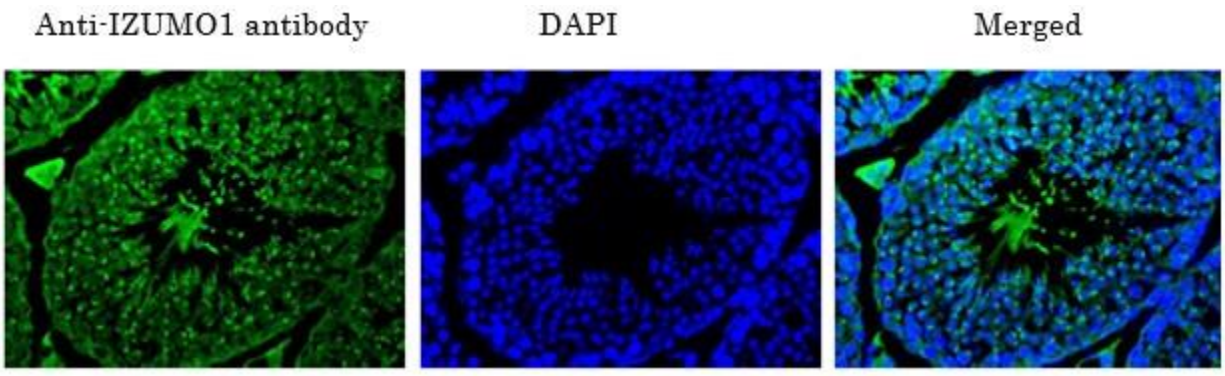

Fig.4. Immunohistochemistry of mouse testis using anti-IZUMO1 antibody.

Formalin-fixed and paraffin-embedded mouse testis

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

Rehydration	100% EtOH, 95%, 90%, 70%, DW
Antigen retrieval	Histo/Zyme (Cat.# k046; Diagnostic BioSystems)
Washing	PBST (0.25% triton X-100/PBS-)
Blocking	10 % FBS / PBST 30 min
1st antibody	1/100 dilution in PBS- 4℃ O/N
Washing	PBS- 5 min, 3 times
2nd antibody	1,000 dilution, 60 min (Alexa Flour-488 goat anti-rabbit IgG (H&L), #1166843 ; Molecular Probes)
Washing	PBS- 5 min, 3 times
DAPI	1.0μg/mL DAPI in TBS 10 min

BioAcademia,Inc. Tel. 81-6-6877-2335 Fax. 81-6-6877-2336 info@bioacademia.co.jp https://www.bioacademia.co.jp/en/

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

1. Inoue N. et al. (2005) The immunoglobulin superfamily protein Izumo is required for sperm to fuse with eggs. Nature. 434:234-8. PubMeD 15759005

BioAcademia,Inc. Tel. 81-6-6877-2335 Fax. 81-6-6877-2336 info@bioacademia.co.jp https://www.bioacademia.co.jp/en/