Anti-IZUMO1 antibody, rat monoclonal (#125), KO-Validated

73-045 100 µg

**Storage:** Shipped at 4°C or at -20°C. Upon arrival, spin-down, aliquot and store at -20°C

**Validation:** Specificity validated with knock-out mice.

**Reactivity:** Mouse and human. Not tested in other species.

**Immunogen:** Mouse sperm

**Isotype:** Rat IgG2a kappa

**Applications:**

1. Western blotting (1/1,000 dilution)
2. Immunoprecipitation (1/100 dilution)
3. Immunofluorescence staining (1/250 dilution)

**Form:** Purified IgG 1 mg/ml in PBS, 50% glycerol. Filter-sterilized. Azide- and carrier- free.

**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 (mouse). Post-translational modifications:

**Expression:** Testis (low level) and sperm (high level). Not expressed in other organs.

**Database Links:** UniProtKB Q9D9J7 (mouse IZUMO1), UniProtKB Q8IYV9 (human IZUMO1)

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Fig.1 Identification of IZUMO1 protein in sperm lysate of wild type mouse but not in that of IZUMO1 knock-out mouse by western blotting with anti-IZUMO1 monoclonal antibody (#125).

Proteins in the lysates (10 µg) were separated on SDS-PAGE, electro-blotted to PVDF membrane and incubated with anti-IZUMO1 antibody (#125) at 1/1,000 dilution.

Lane 1: Sperm lysate from wild-type mouse
Lane 2: Sperm lysate from IZUMO1 knock-out mouse
Fig. 2 Analysis of IZUMO1 protein in the lysates of mouse testis and sperm by western blotting with anti-IZUMO1 antibody (#125).

Proteins in the lysates were separated on SDS-PAGE (10~20% gradient gel) electro-blotted to PVDF membrane and incubated with anti-IZUMO1 antibody (#125) at 1/1,000 dilution. As the second antibody, goat anti-rat IgG antibody conjugated with HRP (Abcam: ab97057) was used at 1/10,000.

Fig. 3 Analysis of IZUMO1 protein in the lysate of human testis and sperm by western blotting with anti-IZUMO1 antibody (#125).

Proteins in the lysates were separated on SDS-PAGE, electro-blotted to PVDF membrane (wet system) and incubated with anti-IZUMO1 antibody (#125) at 1/1,000 dilution. As the second antibody, goat anti-rat IgG antibody conjugated with HRP (Abcam: ab97057) was used at 1/10,000.
Reference: This antibody was used in the following publications.


