Bio Academia
Manufacturer

AS ONE

Anti-ADAM1B Antibody, Rat Monoclonal (#57)

73-010 100 µl

Function: May play a role in spermatogenesis, sperm maturation**,** and fertilization.

Molecular mass: 89,369 with 806 amino acids. N-terminal signal peptide with 33 amino acids from this protein is processed to give propeptide, which may undergo further processing.

Applications

Immunocytochemistry (1/100 – 1/300 dilution)

Immunohistochemistry (1/100 – 1/300 dilution)

Not suitable for Western blotting

Specification

Immunogen: Mouse sperm

Reactivity: Mouse. Not tested in other species.

Form: Purified monoclonal antibody (IgG) 1 mg/ml in 1x PBS, 50% glycerol. Filter-sterilized. Azide and carrier free.

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

Data Link: uniprot/Q8R534 (ADAM1b Mouse)

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

Satouh Y., et al (2012) Visualization of the moment of mouse sperm–egg fusion and dynamic localization of IZUMO1. J. Cell Science 125, 4985–4990.

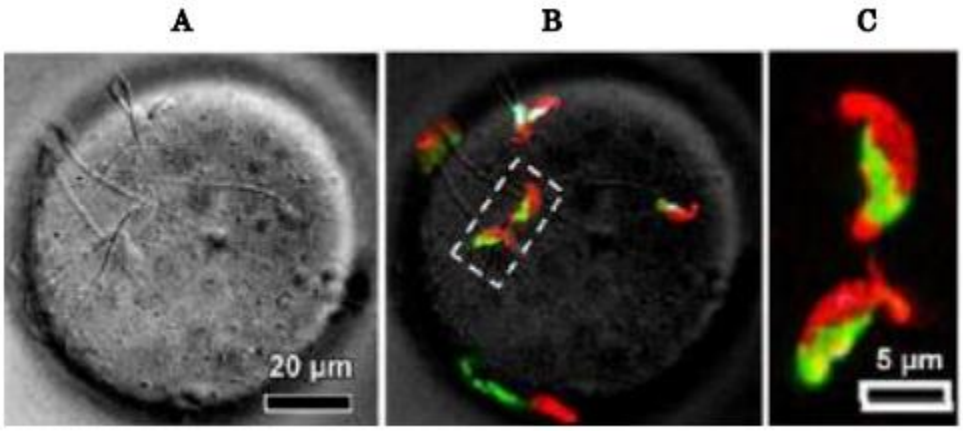

Fig.1 Immunofluorescent staining of ADAM1B in sperm fusing with egg by using anti-ADAM1B antibody (#57). Cd9 −/− females were mated with Red-IZUMO1 males 12 h after an hCG injection for ovulation induction. Eggs were recovered from the Cd9 −/− females 8 h after coitus. Cumulus cells were removed by hyaluronidase treatment. Spermatozoa in the perivitelline space were stained with an Alexa-488-labeled anti-ADAM1B antibody (#57) for 15 min and the eggs were observed using confocal microscopy after being pressed gently between the observation dish and a coverslip. A magnified image of EQ-type sperm from the boxed area in B is shown on the right, C. ADAM1B was stained in green with Alexa-488 conjugated anti-ADAM1B(#57). Red-stained image is Red-IZUMO1.

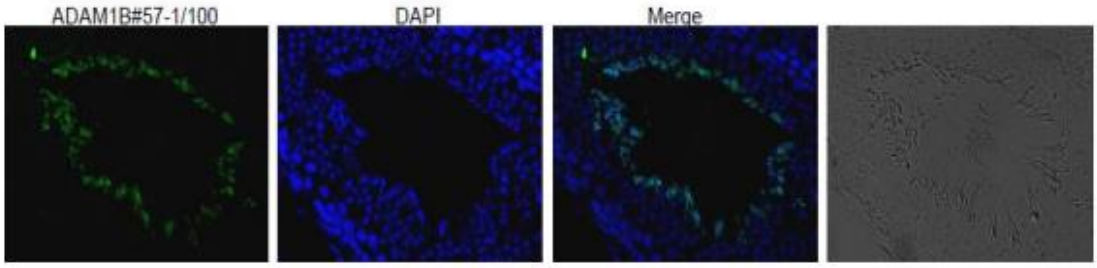

Fig.2. Immunohistological staining of ADAM1B in mouse testis using anti-ADAM1B antibody (#57). A section of formalin fixed and paraffin embedded mouse testis was treated with the anti-ADAM1B antibody at 1/100 dilution after deparaffization and antigen retrieval. The 2nd antibody, anti-rat IgG conjugated with Alexa Fluor 488 (Abcam) was used at 1/1,000 dilution. DNA was stained with DAPI and the merged image was shown (Merge). The bright field microsopic picture of the same region was shown on the right.

Key words: Acrosome reaction, Membrane fusion, Protein trafficking, IZUMO1, Sperm–egg fusion