

Anti-mouse ADAM1B antibody, rat monoclonal (#57)

73-010 100 µg

Shipping and Storage: Ship at 4°C or -20°C and store at -20°C. Do not freeze

Immunogen: Mouse sperm

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

Reactivity: Mouse.

Applications:

1. Immunocytochemistry (1/100 – 1/300)
2. Immunohistochemistry (1/100~1/300) paraffin-embedded section.

Not suitable for western blotting.

Recommend to use clone #158 (BioAcademia 73-007) for western blotting.

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

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.

Database Links: UniProtKB [Q8R534](http://www.uniprot.org/entry/Q8R534) (mouse ADAM1b)

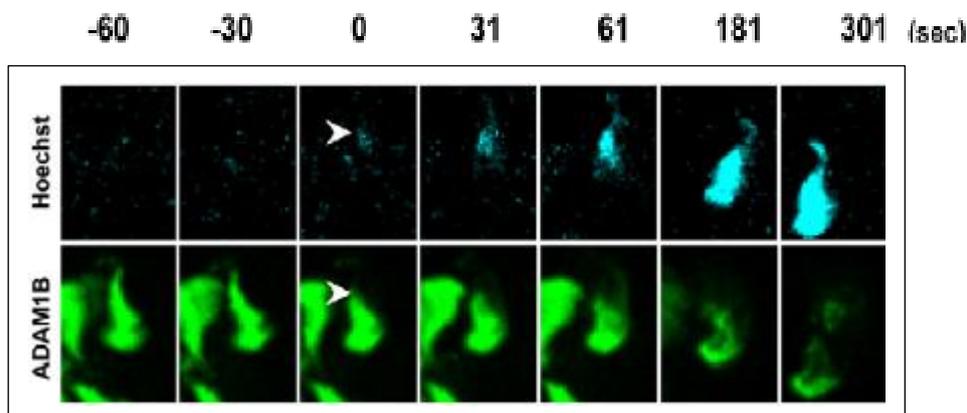


Fig.1 Immunofluorescent staining of ADAM1B during sperm-egg fusion

A representative time-lapse view of sperm-egg fusion. The initiation of fusion (time 0) was detected by transfer of Hoechst 33342 dye to sperm in the same area (indicated by arrowheads). The diffusion of membrane in the postacrosomal area identified by ADAM1B (green) started about 60 s after the initiation of sperm-egg fusion and was accompanied by expansion of the Hoechst 33342 staining area toward the posterior head

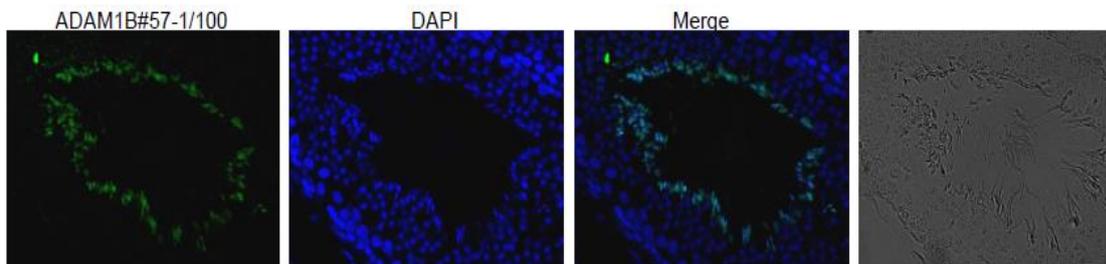


Fig.2. Immunohistological staining of ADAM1B in mouse testis using anti-ADAM1B antibody (#57). A section of formalin fixed and paraffin embedded mouse testis was treated with the anti-ADAM1B antibody at 1/100 dilution after deparaffinization and antigen retrieval. The 2nd antibody, anti-rat IgG conjugated 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 microscopic picture of the same region was shown on the right.

Reference: This antibody was described in 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. PubMed [22946049](https://pubmed.ncbi.nlm.nih.gov/22946049/). IF.