

## Anti-ACE3 antibody, rabbit serum

73-006 100  $\mu$ l

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

**Immunogen:** NTENTPWMKNEGQS (C-terminal of mouse ACE3)

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

**Reactivity:** Mouse. Not tested with other species.

**Applications:**

1. Western blotting (1/500-1/1,000 dilution)
2. Immunoprecipitation (1/100 dilution)
3. Immunofluorescence staining (1/100 dilution)

Other applicacatiotons have not been tested.

**Background:** ACE3 was identified as an IZUMO1 interacting protein from mouse sperm. ACE3 protein is exclusively localized in testis and sperm. However, unlike the disruption of IZUMO1 or ACE, elimination of ACE3 in mouse did not result in loss of sperm fertilizing ability.

ACE3 consists of 737 amino acids with molecular mass of 86 kDa.

**Key words:** Angiotensin converting enzyme-like 3, Sperm, Acrosomal cap, IZUMO1 interacting protein

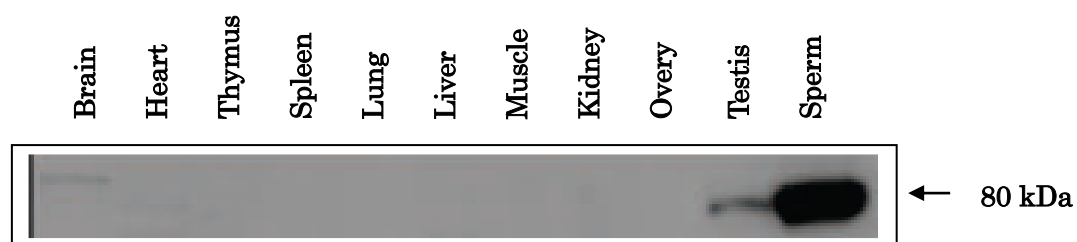
**Data Links:** [uniprot/D0G895](https://www.uniprot.org/entry/D0G895) mouse Ace3

[Gene ID 217246](https://www.ncbi.nlm.nih.gov/gene/217246) mouse Ace3

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

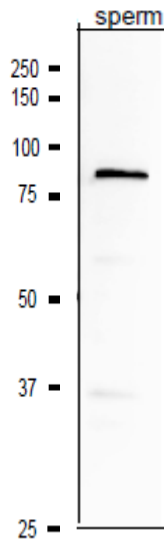
Inoue N. et al. Identification and disruption of sperm-specific angiotensin converting enzyme-3 (ACE3) in mouse.

PubMed [PLoS One](https://pubmed.ncbi.nlm.nih.gov/201040301/). 2010 Apr 22;5(4):e10301. doi: 10.1371. Open access. **WB, IP, IF**



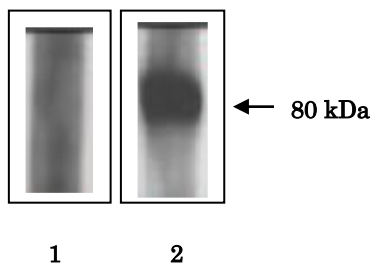
**Fig. 1. Expression of ACE3 in Testis and sperm of mouse as identified by western blotting with anti-ACE3 antibody.**

All samples were loaded at 30  $\mu$ g protein and detected with anti-ACE3 antibody at 1/500 dilution.



**Fig.2 Western blotting analysis of ACE3 protein in crude extract of mouse sperm with anti-ACE3 antibody.**

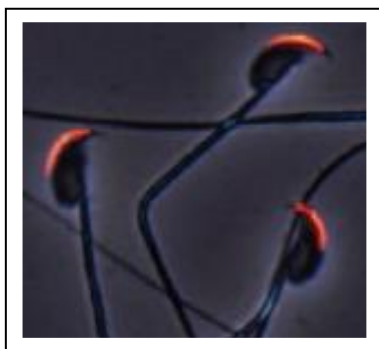
The extract (10  $\mu$ g protein) was separated in 10% SDS-PAGE gel and electro-blotted to PVDE membrane. The membrane was reacted with anti-ACES3 antibody at 1/1,000 dilution. As the 2<sup>nd</sup> antibody, anti-rabbit IgG antibody conjugated with HRP (ab97057) was used at 1/10,000 dilution.



**Fig.3. Immunoprecipitation of ACE3 protein from sperm lysate.**

ACE3 protein was immunoprecipitated from total sperm protein (~100  $\mu$ g) with anti-ACE3 antibody and detected by western blotting with anti-ACE3 antibody.

1. Non-immune serum. 2. Anti-ACE3 antibody



**Fig.4. Subcellular localization of ACE3 protein in sperm.**

Mouse sperm were prepared from cauda epidymis, fixed with ethanol and stained with anti-ACE3 antibody at 1/100. As a secondary antibody, Alexa Fluor 546 conjugated anti-rabbit IgG.