



Anti SPACA1

[Sperm acrosome membrane-associated protein 1]

BACKGROUND

SPACA1 is a membrane protein that localizes in the equatorial segment of spermatozoa in mammals and is reported to function in sperm-egg fusion. Disruption of Spaca1 led to the disappearance of the nuclear plate, a dense lining of the nuclear envelope facing the inner acrosomal membrane. This coincided with the failure of acrosomal expansion during spermiogenesis and resulted in the degeneration and disappearance of the acrosome in mature spermatozoa. SPACA1-deficient male mice are infertile.

Product type	Primary antibody
Immunogen	C-terminal peptide of mouse SPACA1 protein, QSPTDIPVHEDDALSEWNE, conjugated with KLH.
Host Species	Rabbit
Fusion Partner	-
Clone Designation	-
Isotype	-
Host	-
Source	-
Purification	IgG fraction
Form	Liquid
Formulation Buffer	PBS containing 50% glycerol and 0.05% sodium azide.
Concentration	1.0 mg / ml
Volume	100 ul (100 ug)
Label	Unlabeled
Specificity	SPACA1
Cross species reactivity	Mouse Other species have not been tested.
Storage Conditions	Shipped at 4°C or at -20°C. Upon arrival, spin-down and store at -20°C. Aliquot to avoid cycles of freeze/thaw.
Other	Data Link : uniprot/Q9DA48 mouse SPACA1, Gene ID 67652 mouse Spaca1

Application notes	• Western blotting: 1/1000
Recommended dilutions	• Immunofluorescence: 1/100 – 1/500

*Molecular mass: SPACA1: 33,343 Da with 611 amino acids.

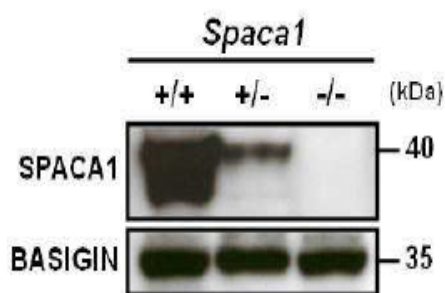
Other applications have not been tested.

Optimal dilutions/concentrations should be determined by the end user.

References	1) Fujihara Y., <i>et al.</i> SPACA1-deficient male mice are infertile with abnormally shaped sperm heads reminiscent of globozoospermia. Development. 2012 Oct;139(19):3583-9. PMID: 22949614
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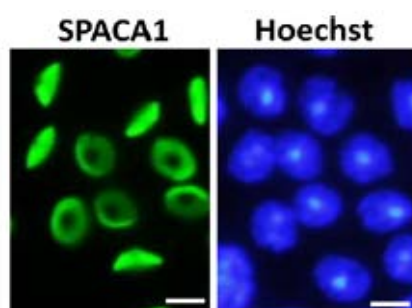
* This antibody was described and used in Ref.1).

ANTIBODY CHARACTERIZATION



20 µg of Triton X-100 extracts from testes of wild type (+/+), *Spaca1* single (+/-) and double (-/-) knock-out mice was reacted with anti-SPACA1 antibody at 1/1,000 dilution. Basigin was used as a loading control.

Fig.1 Western blotting of mouse testis extracts of wild-type and *Spaca1* knockout mice with anti-SPACA1 antibody.



Spaca1 protein in 7 round spermatids was reacted with anti-SPACA1 antibody and as a secondary antibody, Alexa-Fluor 488 conjugated anti-rabbit IgG antibody (green) was used. DNA was stained with Hoechst 33258.

Fig.2 Immunofluorescence staining of SPACA1 in step 7 round spermatids.

RELATED PRODUCTS:

Product Name	Clone	Application	Maker	Cat#
Anti- SLA (haploid sperm cell-specific antigen) Monoclonal Antibody	TRA54	WB / IP / EM	BAM	73-001
Anti- GENA (germ cell-specific antigen) Monoclonal Antibody	TRA98	WB / IHC	BAM	73-003
Anti- ACE3 Polyclonal Antibody	Poly.	WB / IHC / IF	BAM	73-006
Anti- Calreticulin / CALR Polyclonal Antibody	Poly.	WB / IP	BAM	73-018
Anti- Calreticulin-3 / CALR3 Polyclonal Antibody	Poly.	WB / IP / IHC	BAM	73-022
Anti- Calnexin Polyclonal Antibody	Poly.	WB / IP	BAM	73-026
Anti- CD52 Polyclonal Antibody	Poly.	WB / IP	BAM	73-030
Anti- Calmegin Polyclonal Antibody	Poly.	WB / IP	BAM	73-034
Anti- IGSF8 Polyclonal Antibody	Poly.	WB / IF	BAM	73-038
Anti- PDILT Polyclonal Antibody	Poly.	WB / IP / IHC	BAM	73-051
Anti- PMIS2 Polyclonal Antibody	Poly.	WB	BAM	73-055
Anti- SPACA1 Polyclonal Antibody	Poly.	WB	BAM	73-062
Anti- SPESP1 Polyclonal Antibody	Poly.	WB / IF	BAM	73-065

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