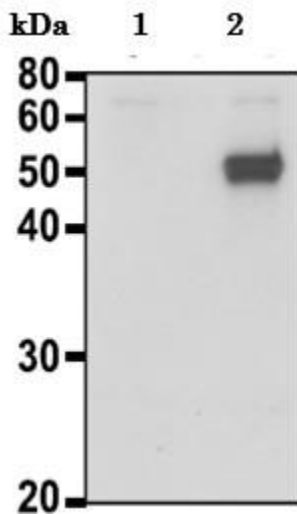


## Anti-Calreticulin / CALR antibody, rabbit serum

<b>Product code</b>	73-018
<b>Size</b>	100 µl
<b>Storage</b>	Store 4°C for short term For long term storage store at -20°C. Aliquot to avoid repeated freezing and thawing.
<b>Concentration</b>	N/A
<b>Buffer</b>	0.09% sodium azide
<b>Purity</b>	Rabbit antiserum
<b>Immunogen</b>	C-EEDEKEEDEEESPGQAKDEL (C-terminal of mouse CALR protein)
<b>Isotype</b>	Rabbit IgG
<b>Reactivity</b>	Mouse and human. Not tested with other species.
<b>Special notes</b>	Validation: Knock-out mouse
<b>Application</b>	1. Western blotting (1/500~1/1,000 dilution) 2. Immunoprecipitation (1/100) 3. Immunofluorescence staining (1/300~1/1,000 dilution) 4. Immunohistochemistry (1/1,000 dilution) Other applications have not been tested.
<b>Background</b>	Calreticulin (CALR) is calcium-binding chaperone that promotes folding, oligomeric assembly and quality control in the endoplasmic reticulum (ER) via the calreticulin/calnexin cycle. This lectin interacts transiently with almost all of the monoglucosylated glycoproteins that are synthesized in the ER. Interacts with the DNA-binding domain of NR3C1 and mediates its nuclear export. Involved in maternal gene expression regulation. May participate in oocyte maturation via the regulation of calcium homeostasis
<b>Data Link</b>	<a href="#">uniprot/P14211</a> Mouse Calreticulin, <a href="#">uniprot/Q96L12</a> Human Calreticulin <a href="#">Gene ID 12317</a> Mouse Calr, <a href="#">Gene ID 811</a> Human Calr
Please note: All products are FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC PROCEDURES. NOT FOR MILITARY USE.	

Data Images: 73-018 Anti-Calreticulin / CALR antibody, rabbit serum

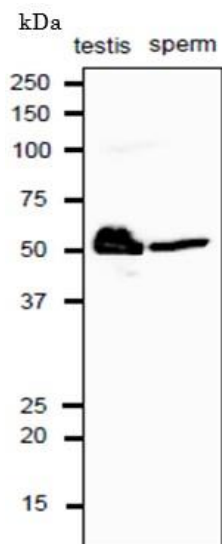


**Fig.1 Identification of CALR protein by western blotting with anti-CALR antibody.**

Embryonic fibroblast cells prepared from *Calr*<sup>-/-</sup> mouse were transfected with a plasmid expressing *Calr*. The cell lysate was analyzed by western blotting with anti-CALR antibody at 1/500 dilution.

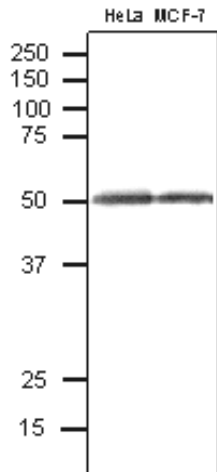
1. Mock-infected cell lysate as a negative control.
2. Cell lysate transfected with a plasmid expressing *Calr*.

The molecular mass is 48 kDa



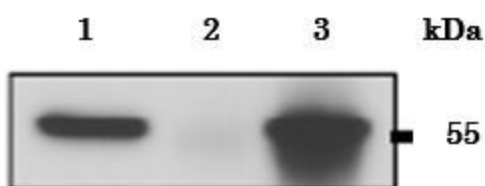
**Fig.2 Western blot analysis of CALR protein in crude extracts of mouse testis and sperm with anti-CALR antibody.**

Proteins in the extracts (10 µg protein) were separated on 10-20% gradient gel of SDS-PAGE and electro-blotted to a PVDF membrane. The membrane was reacted with anti-CALR antibody at 1/1,000 dilution. As the 2<sup>nd</sup> antibody, anti-rat IgG antibody conjugated with HRP (ab97051) was used at 1/10,000 dilution



**Fig.3 Western blot analysis of CALR protein in crude extracts of human cell lines with anti-CALR antibody.**

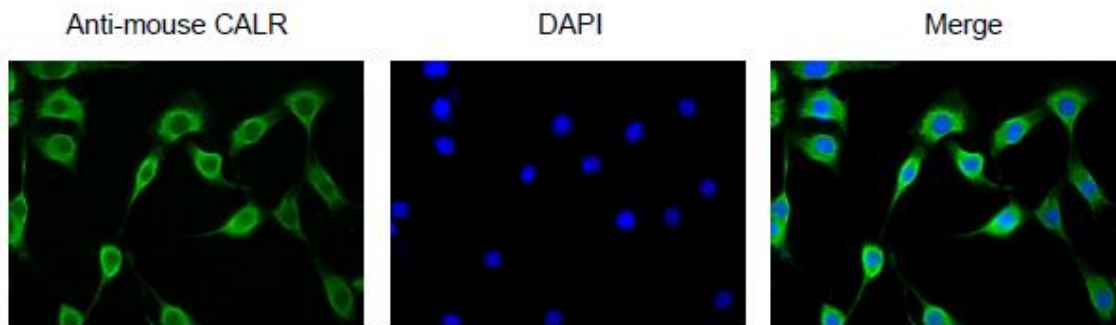
Proteins in the extracts (10 µg protein) were separated on 12.5% gel of SDS-PAGE and electro-blotted to a PVDF membrane (wet system). The membrane was reacted with anti-CALR antibody at 1/1,000 dilution. As the 2<sup>nd</sup> antibody, anti-rat IgG antibody conjugated with HRP (ab97051) was used at 1/10,000 dilution.



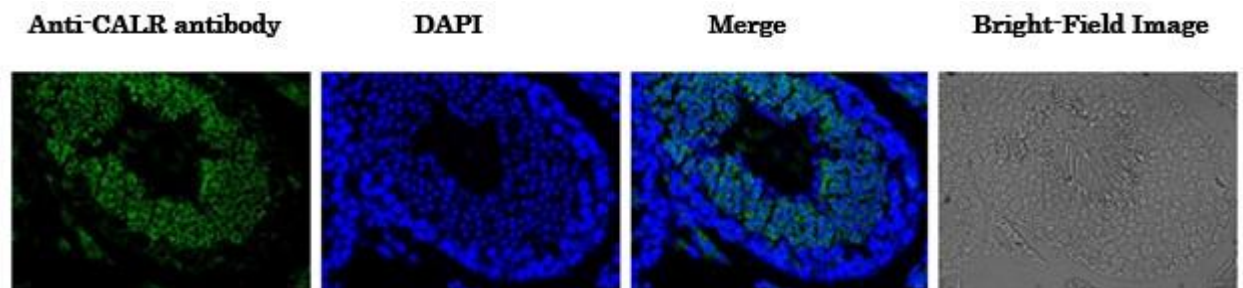
**Fig.4. Immunoprecipitation of CALR protein with anti-CALR antibody.**

Lysates of wild-type mouse testis were immunoprecipitated with anti-CALR antibody and the precipitates were analyzed by western blotting with the same antibody.

1. Input testis lysate
2. Precipitated with preimmune serum
3. Precipitated with anti-CALR antibody



**Fig.5 Immunofluorescence staining of CALR protein in NIH3T3 cells with anti-CALR antibody.** NIH3T3 cells were fixed with 4% paraformaldehyde and permeabilized with 0.5% TritonX 100 and reacted with anti-CALR antibody at 1/300 dilution. As the 2<sup>nd</sup> antibody, goat anti-rabbit IgG antibody conjugated with Alexa Fluor 488 (Molecular Probes) was used at 1/1,000 dilution. DNA was stained with DAPI (1 ug/ml) and the merged image was shown on right.



**Fig.6. Immunohistological staining of CALR protein in mouse testis using anti-CALR antibody.** A section of formalin fixed and paraffin embedded mouse testis was treated with the anti-CALR antibody at 1/1,000 dilution after deparaffization and antigen retrieval. The 2<sup>nd</sup> antibody, goat anti-rabbit IgG conjugated with Alexa Fluor 488 (Molecular Probes #1166843) was used at 1/1,000 dilution. DNA was stained with DAPI (1.0µg/mL) and the merged image was shown (Merge). The bright-field image of the same region was shown on the right.

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

1. Ikawa M. et al (2011) Calsperin is a testis-specific chaperone required for sperm fertility. [J Biol Chem](#).18:5639-46. [pubmed/21131354](#) Free article. **WB, IP**