



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!  
See the following pages for more information!



### Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

[mail@szabo-scandic.com](mailto:mail@szabo-scandic.com)

[www.szabo-scandic.com](http://www.szabo-scandic.com)

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

**Datasheet for 100-401-E99****Calreticulin Antibody****Overview**

<b>Description:</b>	Anti-Calreticulin (RABBIT) Antibody - 100-401-E99
<b>Item No.:</b>	100-401-E99
<b>Size:</b>	200 µL
<b>Applications:</b>	IF, WB
<b>Reactivity:</b>	Human, Mouse, Rat, Bovine, Chicken, Dog, Guinea Pig, Hamster, Monkey, Pig, Rabbit, Sheep
<b>Host Species:</b>	Rabbit

**Product Details****Background:**

Calreticulin is a multifunctional, highly conserved Ca<sup>2+</sup> -binding protein that is localized to the endoplasmic reticulum (ER), but has also been detected in the nucleus and nuclear envelop. Like many other ER proteins, it has the conserved ER retention KDEL (Lys-Asp-Glu-Leu) sequence at its C-terminus. CRT's three domains include a 180 residue N-terminal domain, a proline-rich P-domain (residues 189-288) that binds Ca<sup>2+</sup> with high affinity and shares homology with calnexin (CNX) and calmeglin, and a 110 residue C-terminal domain that binds Ca<sup>2+</sup> with low affinity but high capacity. Recent studies suggest that this soluble ER protein has a multifunctional role. It appears to be involved in calcium storage and regulation as well as having a molecular chaperone activity. It has been shown to interact with the cytoskeleton and to be involved in the regulation of gene expression. Calreticulin may also play a role in cellular proliferation including its apparent activity in the proliferation of certain viruses within mammalian host cells, and it has also been shown to be induced in response to various types of cell stress including amino acid deprivation. Close interconnections among protein synthesis, gene expression and calcium signaling have been observed by many researchers in recent years. Calreticulin might be centrally located and therefore it crucially participates in the coordination of many functions by the cell. Studies also suggest its involvement in a few diseases such as systemic lupus erythematosus, rheumatoid arthritis, celiac disease, complete congenital heart block, and halothane hepatitis.

<b>Synonyms:</b>	CALR, Calregulin, cC1qR, CRP55, ERp60, HSCBP, RO, SSA, grp60, Calreticulin, Endoplasmic reticulum resident protein 60, CRTC
<b>Host Species:</b>	Rabbit
<b>Clonality:</b>	Polyclonal
<b>Format:</b>	Antiserum

## Target Details

<b>Gene Name:</b>	CALR
<b>Reactivity:</b>	Human, Mouse, Rat, Bovine, Chicken, Dog, Guinea Pig, Hamster, Monkey, Pig, Rabbit, Sheep
<b>Immunogen Type:</b>	Conjugated Peptide
<b>Immunogen:</b>	Calreticulin Antibody was produced from whole rabbit serum prepared by repeated immunizations with a synthetic peptide of human calreticulin.
<b>Purity/Specificity:</b>	Anti-Calreticulin Antibody was prepared from monospecific antiserum by delipidation and defibrination. A BLAST analysis was used to suggest cross-reactivity with Calreticulin from Human, mouse, rat, bovine, canine, chicken, guinea pig, monkey, pig, hamster, rabbit, and sheep based on 100% homology with the immunizing sequence. Cross-reactivity with Calreticulin from other sources has not been determined. Cell Signaling research.
<b>Relevant Links:</b>	<ul style="list-style-type: none"><li>• <a href="#">NCBI - NP_004334.1</a></li><li>• <a href="#">GeneID - 811</a></li><li>• <a href="#">UniProtKB - P27797</a></li></ul>

## Application Details

<b>Tested Applications:</b>	IF, WB
<b>Application Note:</b>	Anti-Calreticulin Antibody has been tested by western blot and immunofluorescence and is suitable for use in IHC and IP. Expect a band approximately ~63kDa on specific lysates. Specific conditions for reactivity should be optimized by the end user.
<b>Assay Dilutions:</b>	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
<b>IF:</b>	1:200
<b>IHC:</b>	User Optimized
<b>IP:</b>	User Optimized
<b>WB:</b>	1:5000-10000

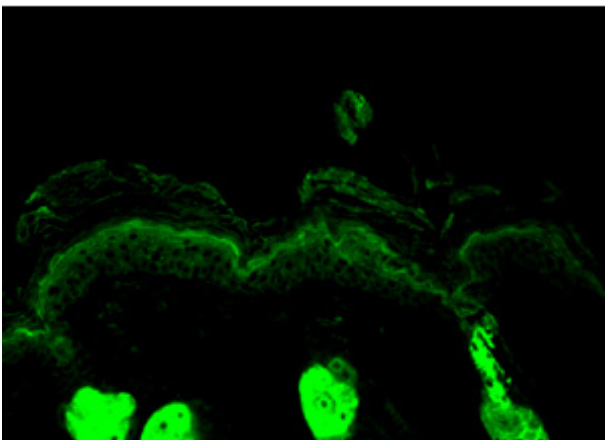
## Formulation

<b>Physical State:</b>	Liquid (sterile filtered)
<b>Concentration:</b>	1.0 mg/mL by UV absorbance at 280 nm

## Shipping & Handling

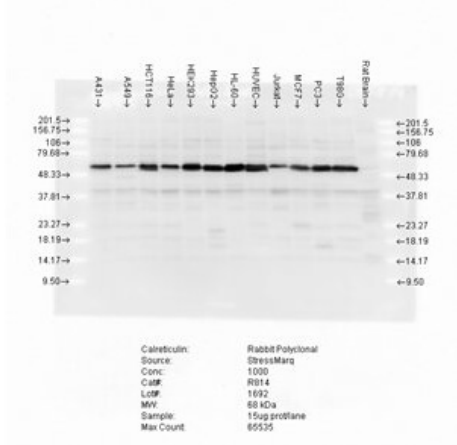
<b>Shipping Condition:</b>	Dry Ice
<b>Storage Condition:</b>	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
<b>Expiration:</b>	Expiration date is one (1) year from date of receipt.

## Images



### Immunofluorescence Microscopy

Immunofluorescence Microscopy of rabbit Anti-Calreticulin Antibody. Tissue: Backskin section of transgenic mice. Fixation: Paraffin-embedded. Primary antibody: anti-Calreticulin for 1h at RT. Secondary antibody: Peroxidase rabbit secondary at 1:10,000 for 45 min at RT. Localization: Cytoplasm. Staining: Calreticulin as precipitated green signal.



### Western Blot

Western Blot of rabbit anti-Calreticulin antibody. Lane 1: A431. Lane 2: A549. Lane 3: HCT116. Lane 4: HeLa. Lane 5: HEK293. Lane 6: HepG2. Lane 7: HL-60. Lane 8: HUVEC. Lane 9: Jurkat. Lane 10: MCF7. Lane 11: PC3. Lane 12: T98G. Lane 13: Rat Brain. Load: 10ug. Primary antibody: Calreticulin at 1:1000 overnight at 4°C. Secondary antibody: Goat anti-rabbit IgG HRP at 1:40,000 for 45 min at RT. Blocked: 5% BLOTTO overnight at 4°C. Predicted/observed size: 48kDa, 63kDa for Calreticulin.

## References

- Gao F et al. Calreticulin (CALR)-induced activation of NF- $\kappa$ B signaling pathway boosts lung cancer cell proliferation. *Bioengineered*. (2022)

## Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.