Product Datasheet

Calreticulin Antibody
NB600-101

Unit Size: 0.1 ml

Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.

Publications: 20

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Updated 8/29/2017 v.20.1

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### NB600-101
Calreticulin Antibody

#### Product Information

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Unit Size</strong></td>
<td>0.1 ml</td>
</tr>
<tr>
<td><strong>Concentration</strong></td>
<td>1.0 mg/ml</td>
</tr>
<tr>
<td><strong>Storage</strong></td>
<td>Aliquot and store at -20C or -80C. Avoid freeze-thaw cycles.</td>
</tr>
<tr>
<td><strong>Clonality</strong></td>
<td>Polyclonal</td>
</tr>
<tr>
<td><strong>Preservative</strong></td>
<td>0.02% Sodium Azide</td>
</tr>
<tr>
<td><strong>Isotype</strong></td>
<td>IgG</td>
</tr>
<tr>
<td><strong>Purity</strong></td>
<td>Immunogen affinity purified</td>
</tr>
<tr>
<td><strong>Buffer</strong></td>
<td>PBS</td>
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</tbody>
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#### Product Description

**Host**
Rabbit

**Gene ID**
811

**Gene Symbol**
CALR

**Species**
Human, Mouse, Rat, Bovine, Hamster, Primate

**Reactivity Notes**
Human, bovine, rat and mouse calreticulin. Others not tested.

**Marker**
Endoplasmic Reticulum Marker

**Immunogen**
A fusion protein to mouse Calreticulin [UniProt# P14211]

#### Product Application Details

**Applications**
Western Blot, Simple Western, Dot Blot, Electron Microscopy, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation, Protein Array, Block/Neutralize

**Recommended Dilutions**
Western Blot 1:1000, Simple Western 1:50, Immunohistochemistry 1:50 - 1:200, Immunocytochemistry/Immunofluorescence 1:50-1:250, Immunoprecipitation, Immunohistochemistry-Paraffin 1:50 -1:200, Dot Blot, Electron Microscopy, Protein Array, Block/Neutralize

**Application Notes**
This Calreticulin antibody is useful for Immunocytochemistry/Immunofluorescence, Immunohistochemistry-Paraffin and Western blot, where a band is observed at ~55 kDa. Electron Microscopy, Blocking/Neutralizing, Dot Blot, Immunoprecipitation and Protein Array were reported in scientific literature.

In Simple Western only 10 - 15 uL of the recommended dilution is used per data point. Separated by Size-Wes, Sally Sue/Peggy Sue.
<table>
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<th>Images</th>
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Immunocytochemistry/Immunofluorescence: Calreticulin Antibody [NB600-101] - Immunofluorescence staining of Calreticulin in HCT15 colon cancer cells using NB600-101. Secondary antibody was an Alexa Fluor 488. Photo courtesy of Dr. Birkenkamp Demtroeder, Arhus University Hospital.

Immunohistochemistry-Paraffin: Calreticulin Antibody [NB600-101] - IHC analysis of a formalin fixed and paraffin embedded (FFPE) tissue section of human thyroid gland using 1:50 dilution of Calreticulin antibody. The signal was developed using HRP-DAB based detection method which followed counterstaining of the nuclei with hematoxylin. This representative section shows a strong positivity of Calreticulin in the follicular epithelial cells, wherein the signal was found to be very intense in the perinuclear region of the cells which correlates well with Endoplasmic reticulum localization of this protein. The para-follicular cells, endothelial cells of blood vessels (not the RBCs though) and the loose connective tissue in the section showed a weak cytoplasmic staining. Some staining was observed in the follicles/colloids also which is potentially the secreted form of Calreticulin.

Immunocytochemistry/Immunofluorescence: Calreticulin Antibody [NB600-101] - The Calreticulin antibody NB600-101 was tested in HeLa cells at a 1:250 dilution against Dylight 488 (Green). Alpha-tubulin and nuclei were counterstained against Dylight 550 (Red) and DAPI (Blue), respectively.
Immunohistochemistry-Paraffin: Calreticulin Antibody [NB600-101] - IHC analysis of a formalin fixed and paraffin embedded (FFPE) tissue section of human thyroid gland using 1:50 dilution of Calreticulin antibody. The signal was developed using HRP-DAB based detection method which followed counterstaining of the nuclei with hematoxylin. This representative section shows a strong positivity of Calreticulin in the follicular epithelial cells, wherein the signal was found to be very intense in the perinuclear region of the cells which correlates well with Endoplasmic reticulum localization of this protein. The para-follicular cells, endothelial cells and the loose connective tissue in the section showed a weak cytoplasmic staining. Some staining was observed in the follicles/colloids also which is potentially the secreted form of Calreticulin.

Simple Western: Calreticulin Antibody [NB600-101] - Simple Western lane view shows a specific band for Calreticulin in 0.5 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.
### Publications


Western Blot protocol specific for Calreticulin Antibody (NB600-101)

Western Blot Procedure

1) Scrape cells* off culture dishes and centrifuge.
2) Dissolve cell pellet in decanoyl-N-methyl glucamide (MEGA-10)** and clarify by centrifugation.
3) Mix 30 mg of protein*** with sample buffer containing mercaptoethanol and SDS and run on a 10% SDS gel. The protein was electroblotted on to nitrocellulose.
4) Block nitrocellulose with 5% powdered milk in PBS for 1 hour.
5) Add the antibody at a concentration of 1:1000 in 5% powdered milk/PBS and incubate for 1 hour.
6) Wash 3 x 5 minutes with PBS.
7) Add peroxidase-labelled anti-rabbit second antibody in PBS at a concentration of 1:3000 and shake for 1 hour.
8) Wash extensively with PBS.
9) Develop with ECL reagents (Amersham). For this experiment, the film was exposed to the blot for 10 seconds. ****

Immunohistochemistry Procedure (NB600-101)

Immunohistochemistry Procedure

1) Paraffin-embedded sections were treated using an HIER [heat-induced epitope retrieval] protocol.
2) NB 600-101 was diluted 1:50 with a DAKO antibody diluent
3) Sections and primary antibody were incubated at RT for 30 minutes.
4) Sections were then stained with DAB and H&E.
5) Sections were mounted with Faramount solution.
6) Result of staining was strong.

**NOTE: normal colon mucosa and adenocarcinoma tissues were used as positive controls for this antibody.

Immunocytochemistry/Immunofluorescence Protocol for Calreticulin Antibody (NB600-101)

Immunofluorescence Procedure

1) Cell cultures were treated using an HIER [heat-induced epitope retrieval] protocol.
2) Calreticulin polyclonal antibody [NB 600-101] was diluted 1:50 with a DAKO antibody diluent
3) Cultures and primary antibody were incubated at RT for 30 minutes.
4) Cultures were then stained with DAB and H&E.
5) Cultures were observed on a Zeiss Axiocam microsocope and with DigiPix software.

**NOTE: COS7 and HCT29 cell cultures were used as positive controls for this antibody.
Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis.
Primary Antibodies are guaranteed for 1 year from date of receipt.

For more information on our 100% guarantee, please visit www.novusbio.com/guarantee

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