Product Datasheet

SCP3/SYCP3 Antibody - BSA Free
NB300-232

Unit Size: 0.1 ml
Store at 4C. Do not freeze.

Reviews: 2  Publications: 71

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Updated 9/6/2022 v.20.1

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### Product Information

<table>
<thead>
<tr>
<th>Feature</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Unit Size</td>
<td>0.1 ml</td>
</tr>
<tr>
<td>Concentration</td>
<td>1 mg/ml</td>
</tr>
<tr>
<td>Storage</td>
<td>Store at 4C. Do not freeze.</td>
</tr>
<tr>
<td>Clonality</td>
<td>Polyclonal</td>
</tr>
<tr>
<td>Preservative</td>
<td>0.02% Sodium Azide</td>
</tr>
<tr>
<td>Isotype</td>
<td>IgG</td>
</tr>
<tr>
<td>Purity</td>
<td>Immunogen affinity purified</td>
</tr>
<tr>
<td>Buffer</td>
<td>PBS</td>
</tr>
</tbody>
</table>

### Product Description

- **Host**: Rabbit
- **Gene ID**: 50511
- **Gene Symbol**: SYCP3
- **Species**: Human, Mouse, Rat, Porcine, Bovine, Chicken, Feline, Parasite
- **Reactivity Notes**: Rat, pig, bovine and mouse. Chicken reactivity reported in scientific literature (PMID: 26096940). Parasite, and Feline reactivity reported in scientific literature (PMID: 27084479). Human reactivity has been observed in IHC. Human reactivity reported in scientific literature (PMID: 29231814).
- **Immunogen**: A synthetic peptide made to the C-terminal region of the human SCP3 protein. [UniProt# Q8IZU3]

### Product Application Details

- **Applications**: Western Blot, Immunoblotting, Immunocytochemistry/Immunofluorescence, Immunohistochemistry, Immunohistochemistry-Frozen, Immunohistochemistry-Paraffin, Immunoprecipitation
- **Recommended Dilutions**: Western Blot 0.5 ug/ml, Immunohistochemistry 1:200-1:500, Immunocytochemistry/Immunofluorescence 1:100-1:500, Immunoprecipitation, Immunohistochemistry-Paraffin 1:100 - 1:500, Immunohistochemistry-Frozen 1:200-1:500, Immunoblotting
- **Application Notes**: This SCP3 antibody is useful for Immunofluorescence, Immunohistochemistry (Frozen and Paraffin), Immunocytochemistry and Western blot where a band is seen at ~28 kDa. Use in immunoblotting reported in scientific literature (PMID: 27612028). Use in immunoprecipitation reported in scientific literature (PMID: 18694876).
### Images


![Image](image1)

**Immunohistochemistry-Paraffin: SCP3/SYCP3 Antibody [NB300-232]** - IHC analysis of a formalin fixed and paraffin embedded tissue section of Mouse testis using SCP3 antibody at 1:1000 dilution. The signal was detected using HRP-DAB detection method and the nuclei were counterstained with hematoxylin. The antibody generated a specific signal of SCP3 in the spermatogonial cells and the spermatocytes. The signal was strongest in the nuclei of spermatogonial cells.

![Image](image2)

**Immunocytochemistry/Immunofluorescence: SCP3/SYCP3 Antibody [NB300-232]** - Exposure to DEHP impairs meiotic progression of oocytes from pachytene to diplotene. Immunolabeling of the oocyte chromosomes with anti-SYCP3 antibody (red) and Hoechst 33342 (blue). All experiments were repeated at least three times independently. (* P<0.05; ** P<0.01) Image collected and cropped by CiteAb from the following publication (http://www.nature.com/doifinder/10.1038/cddis.2017.350), licensed under a CC-BY license.

![Image](image3)

**Immunocytochemistry/Immunofluorescence: SCP3/SYCP3 Antibody [NB300-232]** - Loss of lamin C2 has no effect on meiotic telomere attachment. Chromosome spread preparations of pachytene-like lamin C2-/- spermatocytes showing that all telomeres are associated with SUN1. Anti-SUN1 staining in co-localisation with SYCP3. Image collected and cropped by CiteAb from the following publication (http://dx.plos.org/10.1371/journal.pgen.1003261), licensed under a CC-BY license.

![Image](image4)


Immunocytochemistry/Immunofluorescence: SCP3/SYCP3 Antibody [NB300-232] - Loss of lamin C2 has no effect on meiotic telomere attachment. Chromosome spread preparations of pachytene-like lamin C2-/- spermatocytes showing that all telomeres are associated with SUN1. TeloFISH in co-localisation with SYCP3. Image collected and cropped by CiteAb from the following publication (http://dx.plos.org/10.1371/journal.pgen.1003261), licensed under a CC-BY license.
Immunohistochemistry-Paraffin: SCP3/SYCP3 Antibody [NB300-232] - IHC-P analysis of formalin fixed paraffin embedded tissue section of mouse testes using SCP3 antibody at 1:200 dilution. Specific staining may be seen in the spermatogonial cells and the primary spermatocytes.

Publications

Bailey A, Fuller M YTHDC2 serves a distinct late role in spermatocytes during germ cell differentiation bioRxiv 2023-01-23

Dil S, Ye J, Ma H et al. Cornichon protein CNIH4 is not essential for mice gametogenesis and fertility Developmental biology 2023-01-16 [PMID: 36657507] (ICC/IF, Mouse)

Details:
Dilution used in ICC 1:100


Abdallah S, Jampy A, Moison D et al. Foetal exposure to the bisphenols BADGE and BPAF impairs meiosis through DNA oxidation in mouse ovaries Environmental Pollution 2022-12-01 [PMID: 36464114] (IF/IHC, Mouse)

Hu M, Yeh YH, Munakata Y et al. PRC1-mediated epigenetic programming is required to generate the ovarian reserve Nature communications 2022-08-10 [PMID: 35948547] (ICC/IF, Mouse)

Details:
Supplementary Fig. 1

Wells D, Bitoun E, Moralli D et al. ZCWPW1 is recruited to recombination hotspots by PRDM9, and is essential for meiotic double strand break repair Elife 2020-08-04 [PMID: 32744506]


Li Y, Meng R, Li S et al. The ZFP541-KCTD19 complex is essential for pachytene progression by activating meiotic genes during mouse spermatogenesis Journal of genetics and genomics – Yi chuan xue bao 2022-03-24 [PMID: 35341968] (IF/IHC, Mouse)


Gai X, Xin D, Wu D et al. Pre-ribosomal RNA reorganizes DNA damage repair factors in nucleus during meiotic prophase and DNA damage response Cell research 2022-01-04 [PMID: 34980897]

Immunocytochemistry/Immunofluorescence protocol for SCP3/SYCP3 Antibody (NB300-232)

Immunofluorescence Procedure

1. Freshly prepared slides are soaked in 1X ADB for 75 minutes.
2. Primary antibodies are added concurrently (SCP3 and CDK2).
3. The primary antibodies are incubated overnight in a humid chamber (37 degrees Celsius).
4. The slides are washed for 40 minutes in 1X ADB.
5. The slides are detected with the appropriate secondary antibodies (RDAR for SCP1 and FDAM for CDK2).
6. The slides are incubated for 4 hours in a humid chamber (37 degrees Celsius).
7. The slides are washed for 20 minutes in 1X ADB, followed by 3 washes, 10 minutes each, in 1X PBS.
8. The slides are counterstained with DAPI.
9. Images are captured after allowing the slides to remain in the dark overnight at RT.

10. Dehydrate sections.
11. Mount coverslips.

*The above information is only intended as a guide. The researcher should determine what protocol best meets their needs. Please follow safe laboratory procedures.

Immunohistochemistry-Paraffin Protocol for SCP3/SYCP3 Antibody (NB300-232)

Immunohistochemistry-Paraffin Embedded Sections

Antigen Unmasking:
Bring slides to a boil in 10 mM sodium citrate buffer (pH 6.0) then maintain at a sub-boiling temperature for 10 minutes. Cool slides on bench-top for 30 minutes (keep slides in the sodium citrate buffer all the time).

Staining:
1. Wash sections in deionized water three times for 5 minutes each.
2. Wash sections in PBS for 5 minutes.
3. Block each section with 100-400 ul blocking solution (1% BSA in PBS) for 1 hour at room temperature.
4. Remove blocking solution and add 100-400 ul diluted primary antibody. Incubate overnight at 4 C.
5. Remove antibody solution and wash sections in wash buffer three times for 5 minutes each.
6. Add 100-400 ul HRP polymer conjugated secondary antibody. Incubate 30 minutes at room temperature.
7. Wash sections three times in wash buffer for 5 minutes each.
8. Add 100-400 ul DAB substrate to each section and monitor staining closely.
9. As soon as the sections develop, immerse slides in deionized water.
10. Counterstain sections in hematoxylin.
11. Wash sections in deionized water two times for 5 minutes each.
12. Dehydrate sections.
Western Blot Protocol

1. Perform SDS-PAGE on samples to be analyzed, loading 10-25 ug of total protein per lane.
2. Transfer proteins to PVDF membrane according to the instructions provided by the manufacturer of the membrane and transfer apparatus.
3. Stain the membrane with Ponceau S (or similar product) to assess transfer success, and mark molecular weight standards where appropriate.
4. Rinse the blot TBS -0.05% Tween 20 (TBST).
5. Block the membrane in 5% Non-fat milk in TBST (blocking buffer) for at least 1 hour.
6. Wash the membrane in TBST three times for 10 minutes each.
7. Dilute primary antibody in blocking buffer and incubate overnight at 4C with gentle rocking.
8. Wash the membrane in TBST three times for 10 minutes each.
9. Incubate the membrane in diluted HRP conjugated secondary antibody in blocking buffer (as per manufacturer's instructions) for 1 hour at room temperature.
10. Wash the blot in TBST three times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions.
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.

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