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# SYCP3 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1855a

## Product Information

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| **Application** | WB, IHC, FC, ICC, E |
| **Primary Accession** | Q8IZU3 |
| **Reactivity** | Human |
| **Host** | Mouse |
| **Clonality** | Monoclonal |
| **Clone Names** | 6F9B6 |
| **Isotype** | IgG1 |
| **Calculated MW** | 27729 |
| **Description** | This gene encodes an essential structural component of the synaptonemal complex. This complex is involved in synapsis, recombination and segregation of meiotic chromosomes. Mutations in this gene are associated with azoospermia in males and susceptibility to pregnancy loss in females. Alternate splicing results in multiple transcript variants that encode the same protein. |
| **Immunogen** | Purified recombinant fragment of human SYCP3 (AA: 27-128) expressed in E. Coli. |
| **Formulation** | Purified antibody in PBS with 0.05% sodium azide |

## Additional Information

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| **Gene ID** | 50511 |
| **Other Names** | Synaptonemal complex protein 3, SCP-3, SYCP3, SCP3 |
| **Dilution** | WB~~1/500 - 1/2000 IHC~~1/200 - 1/1000 FC~~1/200 - 1/400 ICC~~N/A E~~1/10000 |
| **Storage** | Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles. |
| **Precautions** | SYCP3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures. |

## Protein Information

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| **Name** | SYCP3 |
| **Synonyms** | SCP3 |

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| **Function** | Component of the synaptonemal complexes (SCS), formed between homologous chromosomes during meiotic prophase. Required for centromere pairing during meiosis in male germ cells (By similarity). Required for normal meiosis during spermatogenesis and male fertility (PubMed:14643120). Plays a lesser role in female fertility. Required for efficient phosphorylation of HORMAD1 and HORMAD2 (By similarity). |
| **Cellular Location** | Nucleus {ECO:0000250\|UniProtKB:Q60547}. Chromosome {ECO:0000250\|UniProtKB:Q60547}. Chromosome, centromere {ECO:0000250\|UniProtKB:Q60547}. Note=It is present in early unpaired cores, in the lateral domains of the synaptonemal complex and in the chromosome cores when they separate at diplotene. It is found axial to the metaphase I chromosomes and in association with pairs of sister centromeres. The centromere-associated protein becomes dissociated from the centromeres at anaphase II and is not found in mitotic metaphase centromeres. {ECO:0000250\|UniProtKB:Q60547} |
| **Tissue Location** | Testis-specific. |

## Background

This gene encodes an essential structural component of the synaptonemal complex. This complex is involved in synapsis, recombination and segregation of meiotic chromosomes. Mutations in this gene are associated with azoospermia in males and susceptibility to pregnancy loss in females. Alternate splicing results in multiple transcript variants that encode the same protein.

## References

1. Hum Pathol. 2013 Apr;44(4):472-9. 2. Cytogenet Genome Res. 2010;128(1-3):162-8.

## Images

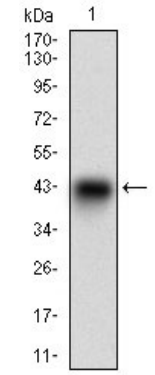



Figure 1: Western blot analysis using SYCP3 mAb against human SYCP3 recombinant protein. (Expected MW is 37.2 kDa)

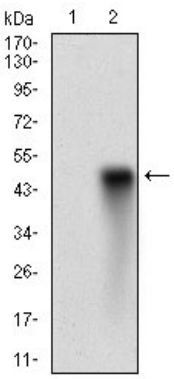
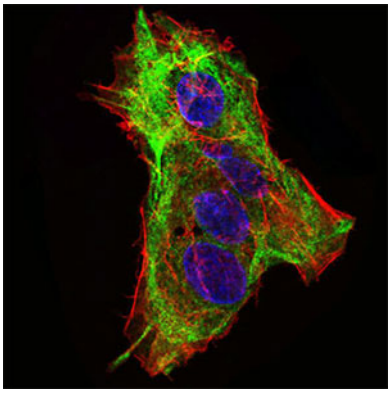



Figure 2: Western blot analysis using SYCP3 mAb against HEK293 (1) and SYCP3 (AA: 27-128)-hIgGFc transfected HEK293 (2) cell lysate.

Figure 3: Immunofluorescence analysis of HepG2 cells using SYCP3 mouse mAb (green). Blue: DRAQ5 fluorescent DNA



dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

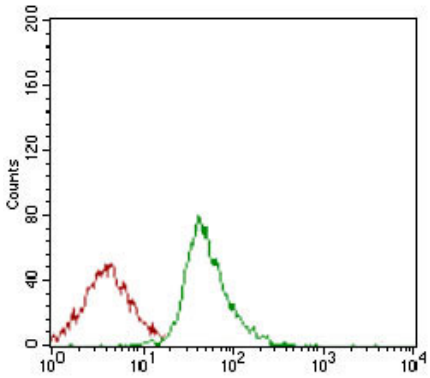



Figure 4: Flow cytometric analysis of Jurkat cells using SYCP3 mouse mAb (green) and negative control (red).

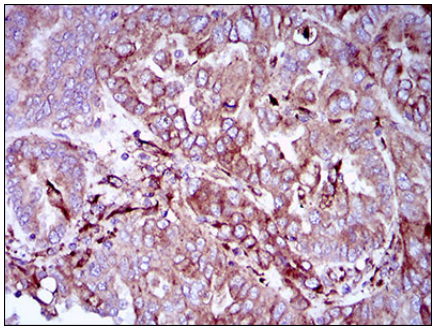


Figure 5: Immunohistochemical analysis of paraffin-embedded endometrial cancer tissues using SYCP3 mouse mAb with DAB staining.

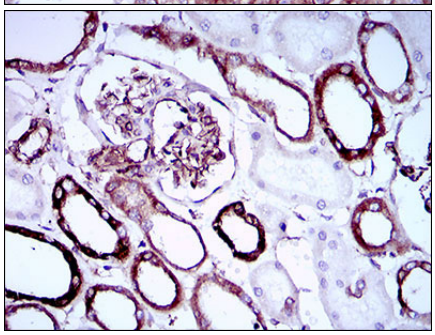


Figure 6: Immunohistochemical analysis of paraffin-embedded kidney tissues using SYCP3 mouse mAb with DAB staining.

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