

SYCP3 Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1856a**Specification****SYCP3 Antibody - Product Information**

Application	E, WB, IF, FC, IHC
Primary Accession	Q8IZU3
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG1
Calculated MW	27.7kDa KDa

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

SYCP3 Antibody - Additional Information

Gene ID 50511

Other Names

Synaptonemal complex protein 3, SCP-3, SYCP3, SCP3

Dilution

E~~1/10000
WB~~1/500 - 1/2000
IF~~1/200 - 1/1000
FC~~1/200 - 1/400
IHC~~1/200 - 1/1000

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.

SYCP3 Antibody - Protein Information

Name SYCP3

Synonyms SCP3

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}

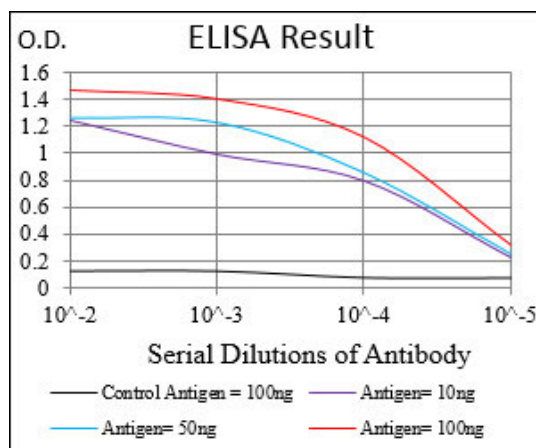
Tissue Location

Testis-specific.

SYCP3 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)



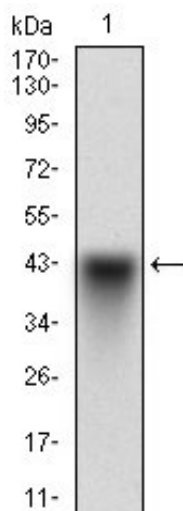


Figure 1: Western blot analysis using SYCP3 mAb against human SYCP3 recombinant protein. (Expected MW is 37.2 kDa)

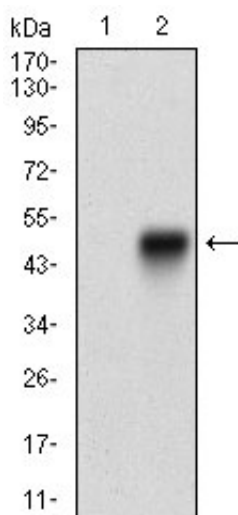


Figure 2: Western blot analysis using SYCP3 mAb against HEK293 (1) and SYCP3 (AA: 27-128)-hlgGfc transfected HEK293 (2) cell lysate.

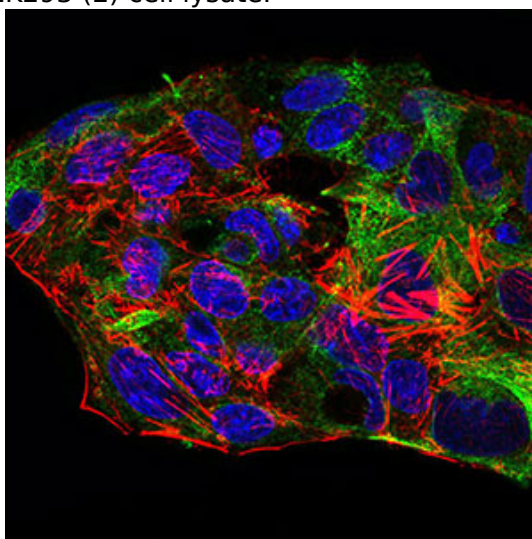


Figure 3: Immunofluorescence analysis of HepG2 cells using SYCP3 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

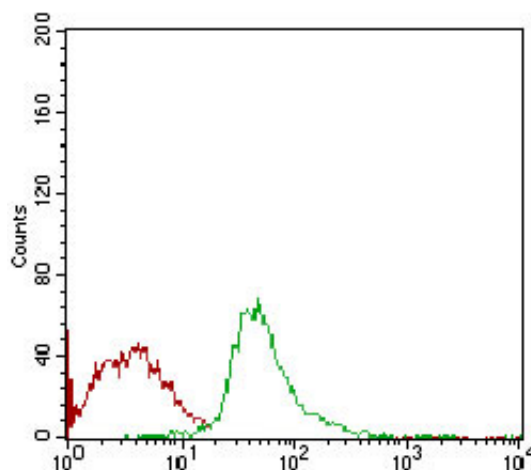


Figure 4: Flow cytometric analysis of Jurkat cells using SYCP3 mouse mAb (green) and negative control (red).

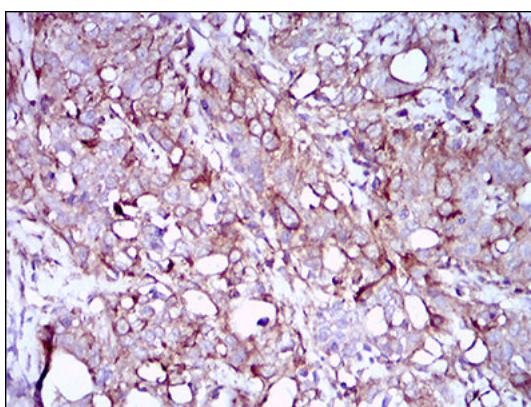


Figure 5: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using SYCP3 mouse mAb with DAB staining.

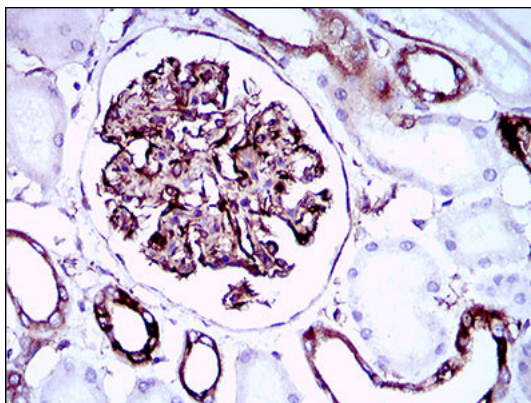


Figure 6: Immunohistochemical analysis of paraffin-embedded kidney tissues using SYCP3 mouse mAb with DAB staining.

SYCP3 Antibody - Background

There are three proteins including thyroxine-binding globulin (TBG), transthyretin and albumin responsible for carrying the thyroid hormones thyroxine (T4) and 3,5,3'-triiodothyronine (T3) in the bloodstream. This gene encodes the major thyroid hormone transport protein, TBG, in serum. It belongs to the serpin family in genomics, but the protein has no inhibitory function like many other members of the serpin family. Mutations in this gene result in TGB deficiency, which has been classified as partial deficiency, complete deficiency, and excess, based on the level of serum TBG. Alternatively spliced transcript variants encoding different isoforms have been found, but the

full-length nature of these variants has not been determined. ;

SYCP3 Antibody - References

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