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SYCP3 Antibody

Purified Mouse Monoclonal Antibody
Catalog # AO1856a

Product Information

Application	WB, IHC, FC, ICC, E
Primary Accession	Q8IZU3
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	6F9C5
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

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

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.

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. ;

References

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

Images

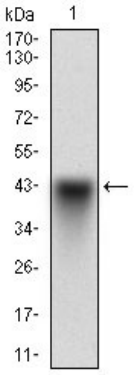
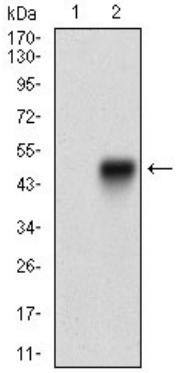


Figure 1: Western blot analysis using SYCP3 mAb against human SYCP3 recombinant protein. (Expected MW is 37.2 kDa)

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



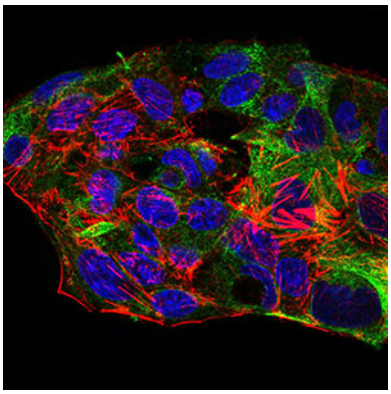


Figure 3: Immunofluorescence analysis of HepG2 cells using SYCP3 mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor-555 phalloidin.

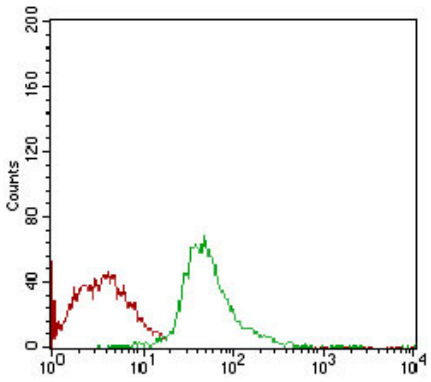


Figure 4: Flow cytometric analysis of Jurkat cells using SYCP3 mouse mAb (green) and negative control (red).

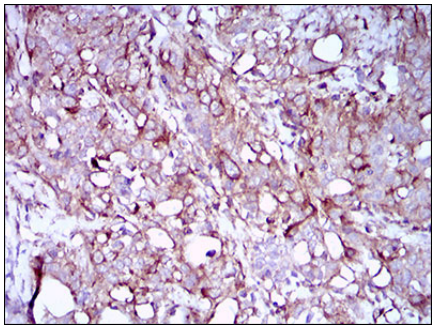


Figure 5: Immunohistochemical analysis of paraffin-embedded cervical cancer tissues using SYCP3 mouse mAb with DAB staining.

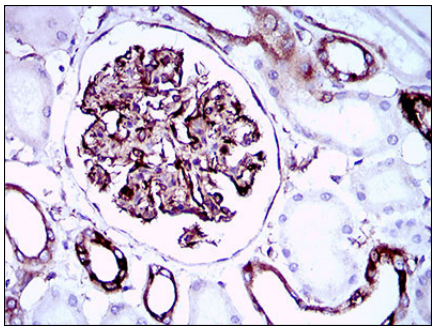


Figure 6: Immunohistochemical analysis of paraffin-embedded kidney tissues using SYCP3 mouse mAb with DAB staining.