10320 Camino Santa Fe, Suite G
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Tel: 858.875.1900 Fax: 858.875.1999

Anti-SCP3 Antibody
Catalog # ABO12720

Specification

Anti-SCP3 Antibody - Product Information

Application	**WB**
Primary Accession	Q8IZU3
Host	**Rabbit**
Reactivity	**Human**
Clonality	**Polyclonal**
Format	**Lyophilized**

Description
Rabbit IgG polyclonal antibody for Synaptonemal complex protein 3(SYCP3) detection. Tested with WB in Human.

Reconstitution
Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-SCP3 Antibody - Additional Information

Gene ID 50511

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

Calculated MW
27729 MW KDa

Application Details
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization
Nucleus . Chromosome . In tripartite segments of synaptonemal complexes, irrespective of whether these are synapsed or unsynapsed. .

Tissue Specificity
Testis-specific. .

Protein Name
Synaptonemal complex protein 3

Contents
Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.

Immunogen
E.coli-derived human SCP3 recombinant protein (Position: E18-E223). Human SCP3 shares 72% and 73% amino acid (aa) sequences identity with mouse and rat SCP3, respectively.

Purification

Immunogen affinity purified.

Cross Reactivity
No cross reactivity with other proteins

Storage	**At -20˚C for one year. After r˚Constitution, at 4˚C for one month. It˚Can also be aliquotted and stored frozen at -20˚C for a longer time.Avoid repeated freezing and thawing.**

Anti-SCP3 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.

Anti-SCP3 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 Cytomety
- Cell Culture

Anti-SCP3 Antibody - Images

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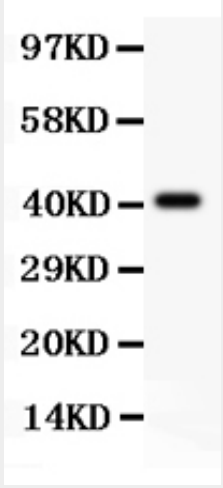
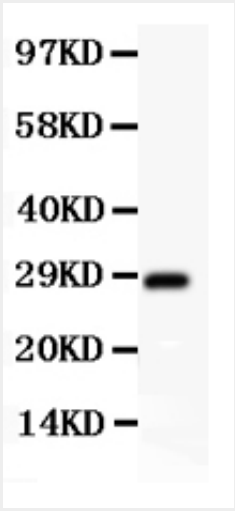


Anti-SCP3 Picoband antibody, ABO12720-1.jpgAll lanes: Anti SCP3 (ABO12720) at 0.5ug/mlWB: Recombinant Human SCP3 Protein 0.5ngPredicted bind size: 41KD Observed bind size: 41KD



Anti-SCP3 Picoband antibody, ABO12720-2.jpgAll lanes: Anti SCP3 (ABO12720) at 0.5ug/mlWB: HT1080 Whole Cell Lysate at 40ugPredicted bind size: 28KDObserved bind size: 28KD

Anti-SCP3 Antibody - Background

SYCP3, also known as COR1 or SCP3, is a protein that in humans is encoded by the SYCP3 gene. It is mapped to 12q23.2. 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. SYCP3 has an essential meiotic function in human spermatogenesis that is compromised by the mutant protein by dominant-negative interference. SYCP3 is linked to inherited aneuploidy in female germ cells and provides a model system for studying age-dependent degeneration in oocytes.