SMCP Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	SMCP, Polyclonal Antibody
Full Product Name	SMCP, CT (SMCP, MCS, MCSP, Sperm mitochondrial-associated cysteine-rich protein) (MaxLight 490)
Product Gene Name	anti-SMCP antibody
Product Synonym Names	SMCP; MCS; MCSP; Sperm mitochondrial-associated cysteine-rich protein
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Supplied as a liquid in PBS, pH 7.2. No preservative added. Labeled with MaxLight490.
Purity/Purification	Purified by Protein A Affinity Chromatography.
Preparation and Storage	Store product at 4 degree C in the dark. DO NOT FREEZE! Stable at 4 degree C for 12 months after receipt as an undiluted liquid. Dilute required amount only prior to immediate use. Further dilutions can be made in assay buffer. Caution: MaxLight490 conjugates are sensitive to light. For maximum recovery of product, centrifuge the original vial prior to removing the cap.
Molecular Weight	12,767 Da
OMIM	601148
3D Structure	ModBase 3D Structure for P49901
Immunogen	SMCP antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 75-105 amino acids from the C-terminal region of human SMCP.
Conjugate	MaxLight490
Note	Preservative Free
Product Categories/Family for anti-SMCP antibody	Antibodies; Mitochondrial Proteins
Applications Tested/Suitable for anti-SMCP antibody	Western Blot (WB), FLISA
Application Notes for anti-SMCP antibody	WB: 1:100-500 FLISA: 1:1,000 Applications are based on unconjugated antibody.
Related Product Information for anti-SMCP antibody	Sperm mitochondria differ in morphology and subcellular localization from those of somatic cells. They are elongated, flattened, and arranged circumferentially to form a helical coiled sheath in the midpiece of the sperm flagellum. The protein encoded by this gene localizes to the capsule associated with the mitochondrial outer membranes and is thought to function in the organization and stabilization of the helical structure of the sperm's mitochondrial sheath.
Product References and Citations for anti-SMCP antibody	Yatsenko, A.N., et al. Hum. Mol. Genet. 15(23):3411-3419(2006). Hawthorne, S.K., et al. Genomics 87(3):382-391(2006). Behne, D., et al. Annu. Rev. Nutr. 21, 453-473 (2001): Cataldo, L., et al. Mol. Reprod. Dev. 45(3):320-331(1996). Aho, H., et al. Genomics 32(2):184-190(1996).

Other Notes	Small volumes of anti-SMCP antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for SMCP purchase	MBS6348930 is an antibody targeting SMCP. Also known as SMCP, CT (SMCP, MCS, MCSP, Sperm mitochondrial-associated cysteine-rich protein) (MaxLight 490). Reactive in Human. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for SMCP. It may not necessarily be applicable to this product.

NCBI GI #	25121989
NCBI GeneID	4184
NCBI Accession #	NP_109588.2
UniProt Primary Accession #	P49901
UniProt Secondary Accession #	Q96A42
UniProt Related Accession #	P49901
GenBank Nucleotide #	NM_030663.2
NCBI Official Full Name	sperm mitochondrial-associated cysteine-rich protein
NCBI Official Synonym Full Names	sperm mitochondria-associated cysteine-rich protein
NCBI Official Symbol	SMCP
NCBI Official Synonym Symbols	MCS; MCSP; HSMCSGEN1
UniProt Protein Name	Sperm mitochondrial-associated cysteine-rich protein
Protein Family	Sperm mitochondrial-associated cysteine-rich protein
UniProt Gene Name	SMCP
UniProt Synonym Gene Names	MCS; MCSP
UniProt Entry Name	MCSP_HUMAN
NCBI Protein Information	sperm mitochondrial-associated cysteine-rich protein; mitochondrial capsule selenoprotein
UniProt Comments for SMCP	SMCP: Involved in sperm motility. Its absence is associated with genetic background dependent male infertility. Infertility may be due to reduced sperm motility in the female reproductive tract and inability to penetrate the oocyte zona pellucida. Chromosomal Location of Human Ortholog: 1q21.3 Cellular Component: mitochondrion; mitochondrial membrane; cytoplasm Biological Process: sperm motility; penetration of zona pellucida
Research Articles on SMCP	**1.** the initiation results indicate that an ectopically expressed variant form of SMCP has a role in tumor initiation of CSCs/CICs and that the variant form of SMCP might be a novel CSC/CIC marker
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