PRODUCT INFORMATION

Expression system E.coli

Domain 1-116aa

UniProt No. P49901

NCBI Accession No. NP_109588

Alternative Names Sperm mitochondria-associated cysteine-rich protein, HSMCSGEN1, MCS, MCSP

PRODUCT SPECIFICATION

Molecular Weight

15.2 kDa (139aa) confirmed by MALDI-TOF (Molecular weight on SDS-PAGE will appear higher)

Concentration

0.5mg/ml (determined by Bradford assay)

Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.15M NaCl, 20% glycerol, 1mM EDTA, 0.1mM PMSF

Purity

> 85% by SDS-PAGE

Tag

His-Tag

Application SDS-PAGE

Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

BACKGROUND

Description

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. SMCP 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. Recombinant human SMCP protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.



Amino acid Sequence

MGSSHHHHHH SSGLVPRGSH MGSMCDQTKH SKCCPAKGNQ CCPPQQNQCC QSKGNQCCPP KQNQCCQPKG SQCCPPKHNH CCQPKPPCCI QARCCGLETK PEVSPLNMES EPNSPQTQDK GCQTQQQPHS PQNESRPSK

General References

Aho H., et al. (1996) Genomics. 32:184-190 Hawthorne S.K., et al. (2006) Genomics. 87:382-391



