Recombinant SYCP2 protein (His tag)

Catalog Number	545846
Synonyms	SCP-2; Synaptonemal complex lateral element protein; hsSCP2
Species	Human
Expression System	E. coli
Accession	Q9BX26
Molecular Weight	Predictes a molecular mass of 46.98 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 51 kDa band.

Product Information

Sequence Region	1-394
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 1-394 aa (Q9BX26) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant human Synaptonemal complex protein 2 (SCP-2) fragment (amino acids 1-394) is a high-quality protein designed for structural and biochemical studies. This fragment represents a stable and soluble unit of the full-length protein, which plays a critical role in meiotic chromosome synapsis and fertility. Ideal for researchers investigating meiosis, chromosome dynamics, and reproductive biology. Synaptonemal complex protein 2 (SCP-2), encoded by the SYCP2 gene, is a major component of the axial/lateral elements of synaptonemal complexes during meiotic prophase. It is essential for the assembly of these complexes, facilitating normal chromosome synapsis in both oocyte and spermatocyte development, and is required for male and female fertility. SCP-2 enables the insertion of SYCP3 into synaptonemal complexes and depends on SYCP3 for its own incorporation into axial/lateral elements. It may also contribute to chromatin organization by transiently binding to DNA scaffold attachment regions. The protein localizes to the nucleus and chromosome, specifically within the axial/lateral elements of synaptonemal complexes, underscoring its pivotal role in meiotic processes.