Data Sheet (Cat.No.TMPJ-01190)

SPESP1 Protein, Human, Recombinant (His)

General Information

Synonyms:	Sperm Equatorial Segment Protein 1;Glycosylated 38 kDa Sperm Protein C-7/8;ESP;SP-ESP; SPESP1;Equatorial Segment Protein
Protein Construction:	Tyr20-Tyr350
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q6UW49
Molecular Weight:	58 KDa (reducing condition)
AA Sequence:	Tyr20-Tyr350

QC Testing

Biological Activity:	Activity has not been tested. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	Greater than 90% as determined by reducing SDS-PAGE. (QC verified)
Endotoxin:	< 0.1 ng/μg (1 EU/μg) as determined by LAL test.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing 20 mM PB, 150 mM NaCl, pH 7.4.

Preparation and Storage

Reconstitution:

Reconstitute the lyophilized protein in distilled water. The product concentration should not be less than 100 μg/ml. Before opening, centrifuge the tube to collect powder at the bottom. After adding the reconstitution buffer, avoid vortexing or pipetting for mixing.

Stability & Storage:

Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

Sperm Equatorial Segment Protein 1 (SPESP1) is a member of the SPESP1 family. SPESP1 is highly expressed in the testis, where it is localized to the acrosome of postmeiotic stages of spermiogenesis; it is expressed at lower levels in the placenta and fetal lung. SPESP1 is involved in the multicellular organisimal development. Disruption of SPESP1 leads to abnormal distribution of sperm proteins resulting in a detached membrane from the equatorial

segment and less fertile sperm. SPESP1 may interact with IZUMO1 and MN9 antigen and it contains an N-glycosylation site as well as several cAMP-dependent kinase, protein kinase C, and casein kinase II consensus phosphorylation sites.

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