Recombinant TEX14 protein (His tag)

Catalog Number	545381
Synonyms	Protein kinase-like protein SgK307; Sugen kinase 307; Testis-expressed sequence 14; Testis-expressed sequence 14 protein
Species	Human
Expression System	E. coli
Accession	Q8IWB6
Molecular Weight	Predictes a molecular mass of 37.29 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 37 kDa band.

Product Information

Sequence Region	209-519
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 209-519 aa (Q8IWB6) 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 Inactive Serine/Threonine-Protein Kinase TEX14 (Fragment 209-519) is a high-purity protein fragment designed for functional studies. This product encompasses the complete protein kinase domain (residues 227-518) of TEX14, providing researchers with a targeted tool to investigate its roles in germ cell intercellular bridge formation and kinetochore-microtubule attachment during cell division. TEX14 is a critical human protein required for both the formation of intercellular bridges during meiosis and for kinetochore-microtubule attachment during mitosis. Intercellular bridges are evolutionarily conserved structures connecting differentiating germ cells, essential for spermatogenesis and male fertility. TEX14 functions by promoting the conversion of midbodies into intercellular bridges through its interaction with CEP55, thereby blocking cell abscission. During mitosis, TEX14 is recruited to kinetochores by PLK1 and regulates outer kinetochore maturation and microtubule attachment. The protein localizes to the cytoplasm, midbody, and kinetochore, and is notably detected in intercellular bridges connecting male germ cells. Despite containing a protein kinase domain, TEX14 exhibits no kinase activity in vitro, suggesting structural or regulatory roles in these essential cellular processes.