Recombinant KHDC3 protein (His tag)

Catalog Number	540443
Synonyms	ES cell-associated transcript 1 protein; KHDC3-like protein
Species	Human
Expression System	E. coli
Accession	Q587J8
Molecular Weight	Predictes a molecular mass of 15.34 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	1-118
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 1-118 aa (Q587J8) 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 KHDC3L (KH domain-containing protein 3) Fragment (aa 1-118) is a high-purity protein designed for studying the KH domain's role in RNA binding, early embryonic development, and DNA repair mechanisms. This fragment fully encompasses the functional KH domain, making it an ideal tool for domain-specific functional assays and molecular interactions. KHDC3L is a component of the subcortical maternal complex (SCMC), essential for early embryonic development by serving as a structural constituent of cytoplasmic lattices that store maternal proteins. It regulates spindle assembly through AURKA and PLK1 localization, supports DNA replication fork restart via BLM and TRIM25 recruitment, and facilitates homologous recombination-mediated DNA repair by recruiting RAD51 and sustaining PARP1 activity. The protein localizes to the cytoplasm, cell cortex, nucleus, mitochondria, centrosomes, and chromosomes, with roles in neural stem cell neurogenesis and anxiety regulation. Its RNA-binding capability underscores its multifunctional nature in cellular processes.