Recombinant ISL1 protein (His tag)

Catalog Number	544752
Synonyms	Islet-1
Species	Human
Expression System	E. coli
Accession	P61371
Molecular Weight	Predictes a molecular mass of 17.78 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 18 kDa band.

Product Information

Sequence Region	1-141
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 1-141 aa (P61371) 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 Insulin gene enhancer protein ISL-1 (Islet-1) Fragment (residues 1-141) is a high-purity protein designed for studying the LIM zinc-binding domains. This fragment fully encompasses the LIM zinc-binding 1 and 2 domains, making it an ideal tool for investigating transcriptional regulation, retinal ganglion cell differentiation, and cardiac development mechanisms. The full-length Insulin gene enhancer protein ISL-1 (Islet-1) is a DNA-binding transcriptional activator that recognizes the consensus octamer binding site 5'-ATAATTAA-3' in target gene promoters. It plays a fundamental role in retinal ganglion cell differentiation by cooperating with POU4F2 to regulate gene expression and cell fate specification. ISL-1 is also essential for heart development, controlling proliferation, survival, and migration of cardiac progenitor cells through regulation of FGF and BMP growth factors. Located in the nucleus, this protein is involved in motor neuron specification and binds to insulin gene enhancer sequences, highlighting its broad significance in developmental biology and transcriptional regulation.