Recombinant LDB1 protein (His tag)

Catalog Number	538382
Synonyms	LDB-1; Carboxyl-terminal LIM domain-binding protein 2; CLIM-2; LIM domain-binding factor CLIM2; hLdb1; Nuclear LIM interactor
Species	Human
Expression System	E. coli
Accession	Q86U70
Molecular Weight	Predictes a molecular mass of 27.88 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 28 kDa band.

Product Information

Sequence Region	65-284
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 65-284 aa (Q86U70) 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 LIM domain-binding protein 1 (LDB-1) fragment (amino acids 65-284) is a highly stable and soluble protein preparation ideal for structural biology studies and biochemical assays. This 220-amino acid fragment was computationally optimized to maintain structural integrity while providing excellent experimental performance for researchers investigating LIM domain interactions and transcriptional regulation mechanisms. LIM domain-binding protein 1 (LDB-1) functions as a critical adapter protein that binds to the LIM domains of various transcription factors, playing a key role in regulating their transcriptional activity by determining specific partner interactions. The protein is essential for proper neuronal development, working cooperatively with LHX3 and ISL1 in the formation of interneurons and motor neurons. Additionally, LDB-1 acts synergistically with LHX1/LIM1 in axis formation and gene expression activation, and collaborates with LMO2 to regulate red blood cell development by maintaining erythroid precursors in an immature state. The protein is localized to the nucleus, where it orchestrates these critical developmental and regulatory processes.