# Recombinant KLD10 protein (His tag)

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| **Catalog Number** | 545224 |
| **Species** | Human |
| **Expression System** | E. coli |
| **Accession** | Q6PID8 |
| **Molecular Weight** | Predictes a molecular mass of 41.77 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band. |

## Product Information

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| **Sequence Region** | 87-442 |
| **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 87-442 aa (Q6PID8) were fused with 6His tag. |

## Storage & Handling

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| **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.<br>Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise. |

## Description

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| **Description** | Recombinant Kelch domain-containing protein 10 (KLHDC10) fragment (residues 87-442) is a highly stable and soluble protein unit ideal for structural, biochemical, and functional studies. This fragment supports research into the DesCEND pathway, ribosome-associated quality control, and cellular stress responses. Kelch domain-containing protein 10, encoded by the KLHDC10 gene in Homo sapiens, is a substrate-recognition component of the Cul2-RING (CRL2) E3 ubiquitin ligase complex within the DesCEND pathway. This pathway targets proteins with specific C-terminal degrons, such as proline-glycine or alanine tails, for ubiquitination and degradation. KLHDC10 plays a critical role in ribosome-associated quality control by recognizing CAT tails on stalled nascent chains, facilitating their removal and degradation. Additionally, it contributes to oxidative stress-induced cell death through MAP3K5 activation and regulates necroptosis. The protein is localized in both the nucleus and cytoplasm, underscoring its involvement in diverse cellular processes. |