Recombinant CDX2 protein (His tag)

Catalog Number	541101
Synonyms	CDX-3; Caudal-type homeobox protein 2
Species	Human
Expression System	E. coli
Accession	Q99626
Molecular Weight	Predictes a molecular mass of 14.10 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 14 kDa band.

Product Information

Sequence Region	167-269
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 167-269 aa (Q99626) 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	This product is a recombinant fragment of the human Homeobox protein CDX-2 (Caudal-type homeobox protein 2), encompassing amino acids 167-269. It is designed as a stable and soluble unit, ideal for structural studies and biochemical assays investigating intestinal epithelial transcription regulation. CDX-2 is a transcription factor crucial for regulating gene expression in the intestinal epithelium, playing key roles in early differentiation and maintenance of the intestinal lining. It binds to specific DNA sequences to activate transcription of genes such as sucrase-isomaltase (SI), vitamin D receptor (VDR), lactase-phlorizin hydrolase (LPH), claudin-2 (CLDN2), mucin MUC2, and carbonic anhydrase 1 (CA1). Additionally, CDX-2 exhibits a preference for methylated DNA, highlighting its involvement in epigenetic regulation. The protein is localized to the nucleus, where it orchestrates transcriptional activities essential for intestinal function and homeostasis.