Recombinant VSX2 protein (His tag)

Catalog Number	547110
Synonyms	Ceh-10 homeodomain-containing homolog; Homeobox protein CHX10
Species	Human
Expression System	E. coli
Accession	P58304
Molecular Weight	Predictes a molecular mass of 14.75 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 15 kDa band.

Product Information

Sequence Region	148-257
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 148-257 aa (P58304) 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	The Recombinant Human VSX2 Protein Fragment (148-257) is a highly stable and soluble 110-amino acid segment derived from the Visual system homeobox 2 protein. This fragment is ideal for structural studies, biochemical assays, and functional investigations of VSX2's role in transcriptional regulation and retinal development. Visual system homeobox 2 (VSX2), also known as Homeobox protein CHX10, is a transcriptional regulator that binds to the consensus DNA sequence 5'-[TC]TAATT[AG][AG]-3' to modulate gene expression. It plays a critical role in sensory retina specification and morphogenesis, spinal cord V2a interneuron differentiation, and retinal ganglion cell development. VSX2 competitively inhibits the ISL1-LHX3 complex at response elements, repressing motor neuron genes and photoreceptor arrestin SAG transcription. It also regulates bipolar cell differentiation, maintains neural retina identity by influencing canonical Wnt signaling, and localizes to the nucleus. The provided fragment represents a stable, soluble region optimized for experimental applications.