Recombinant SIX5 protein (His tag)

Catalog Number	545411
Synonyms	DM locus-associated homeodomain protein; Sine oculis homeobox homolog 5
Species	Human
Expression System	E. coli
Accession	Q8N196
Molecular Weight	Predictes a molecular mass of 21.64 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 22 kDa band.

Product Information

Sequence Region	86-258
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 86-258 aa (Q8N196) 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 Homeobox Protein SIX5 (Fragment 86-258) is a high-quality, stable, and soluble protein fragment designed for structural and biochemical studies. This product offers researchers a reliable tool to investigate the role of SIX5 in organogenesis and transcriptional regulation, specifically engineered to support experimental accuracy and reproducibility. Homeobox protein SIX5, encoded by the SIX5 gene in humans, functions as a transcription factor implicated in organogenesis and the maintenance of retina formation. It binds specific DNA motifs, such as the 5'-GGTGTCAG-3' sequence in the ATP1A1 ARE regulatory element and the 5'-TCA[AG][AG]TTNC-3' motif in the myogenin promoter and IGFBP5 promoter, suggesting a role in gene expression control. SIX5 is thought to be regulated through interactions with Dach and Eya proteins, with coactivation by EYA1, EYA2, and EYA3. The protein localizes to both the cytoplasm and nucleus, indicating its dynamic involvement in cellular processes. This recombinant fragment (residues 86-258) was selected for its stability and solubility, enabling focused research on SIX5's functional domains without the complexities of the full-length protein.