Recombinant SOX3 protein (His tag)

Catalog Number	537732
Species	Human
Expression System	E. coli
Accession	P41225
Molecular Weight	Predictes a molecular mass of 11.41 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 11 kDa band.

Product Information

Sequence Region	137-216
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 137-216 aa (P41225) 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 Transcription factor SOX-3 fragment (residues 137-216) is a high-quality, stable protein product designed for structural and biochemical research. This 80-amino acid fragment maintains solubility and integrity, making it ideal for investigating SOX-3's role in neural development, hypothalamo-pituitary axis formation, and male sex determination. Transcription factor SOX-3, encoded by the SOX3 gene, is a critical nuclear protein essential for the formation of the hypothalamo-pituitary axis. It functions as a developmental switch in neuronal systems by maintaining neural cells in an undifferentiated state, counteracting proneural proteins to suppress neuronal differentiation. Additionally, SOX-3 plays a vital role in craniofacial morphogenesis within pharyngeal epithelia and is necessary for initiating male sex determination by directing pre-Sertoli cell development toward Sertoli rather than granulosa cell lineages. The protein localizes to the nucleus, where it regulates key transcriptional pathways involved in these processes.