Recombinant TBXT protein (His tag)

Catalog Number	546446
Synonyms	Brachyury protein; Protein T
Species	Human
Expression System	E. coli
Accession	O15178
Molecular Weight	Predictes a molecular mass of 22.70 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 25 kDa band.

Product Information

Amino Acid Sequence	MSKIKRELRV GLEESELWLR FKELTNEMIV TKNGRRMFPV LKVNVSGLDP NAMYSFLLDF VAADNHRWKY VNGEWVPGGK PEPQAPSCVY IHPDSPNFGA HWMKAPVSFS KVKLTNKLNG GGQIMLNSLH KYEPRIHIVR VGGPQRMITS HCFPETQFIA VTAYQNEEIT ALKIKYNPFA KAFLDAKERL EHHHHHH
Form	Lyophilized powder
Formulation	Lyophilized from sterile 25 mM HEPES, 150 mM NaCl, pH 8.0
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 40-223 aa (O15178) were fused with C-terminal 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

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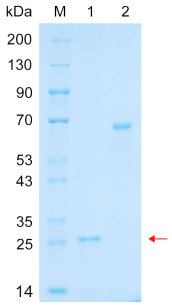
This product is a recombinant fragment of the human T-box transcription factor T (Brachyury protein), encompassing amino acids 40-223. This 184-residue fragment is engineered for stability and solubility, making it an ideal tool for structural studies and biochemical assays focused on mesoderm formation and transcriptional regulation.
The full-length Brachyury protein, encoded by the TBXT gene, is a key transcription factor involved in mesoderm formation and differentiation. It functions by binding to the palindromic T-site DNA sequence (5'-TTCACACCTAGGTGTGAA-3') to activate transcription of genes critical for embryonic development. The protein is localized to the nucleus, where it exerts its regulatory role. This fragment was selected computationally to provide a stable, soluble unit that retains utility for investigating the protein's functional mechanisms without containing known domains, facilitating research into its structural and interaction properties.

Validation

SDS-PAGE



Recombinant TBXT protein (His tag) SDS-PAGE
M: Marker; Lane 1: TBXT; Lane 2: BSA