Recombinant LEF1 protein (His tag)

Catalog Number	546199
Synonyms	LEF-1; T cell-specific transcription factor 1-alpha; TCF1-alpha
Species	Human
Expression System	E. coli
Accession	Q9UJU2
Molecular Weight	Predictes a molecular mass of 13.75 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 14 kDa band.

Product Information

Sequence Region	297-399
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 297-399 aa (Q9UJU2) 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	Introducing the recombinant LEF-1 (297-399) fragment, a high-quality protein product derived from the human Lymphoid enhancer-binding factor 1. This fragment is expertly engineered to provide a stable and soluble unit ideal for structural studies, biochemical assays, and functional investigations into Wnt signaling and T-cell regulation. Lymphoid enhancer-binding factor 1 (LEF-1) is a key transcription factor in Homo sapiens that binds DNA sequence-specifically and participates in the Wnt signaling pathway. It activates target gene transcription in conjunction with CTNNB1 and EP300, while being modulated by regulators like PIAG and TLE family members. LEF-1 is crucial for T-cell receptor alpha enhancer function, gamma-delta T-cell development, odontoblast differentiation, and hair follicle morphogenesis. Isoforms exhibit diverse roles, such as activating MYC and CCND1 in pancreatic tumor cells or repressing E-cadherin to influence cell migration. The full-length protein is localized to the nucleus, where it may associate with nuclear bodies upon PIASG binding, underscoring its importance in nuclear processes and disease pathways.