Recombinant ELF3 protein (His tag)

Catalog Number	540128
Synonyms	E74-like factor 3; Epithelial-restricted with serine box; Epithelium-restricted Ets protein ESX; Epithelium-specific Ets transcription factor 1; ESE-1
Species	Human
Expression System	E. coli
Accession	P78545
Molecular Weight	Predictes a molecular mass of 13.77 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 14 kDa band.

Product Information

Sequence Region	273-371
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 273-371 aa (P78545) 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 ETS-related transcription factor Elf-3 fragment (aa 273-371) is a high-quality, stable protein preparation ideal for structural and biochemical studies. This 99-amino acid fragment, derived from the Homo sapiens ELF3 gene, represents a soluble and well-folded region optimized for research applications, enabling detailed investigation of this key transcriptional regulator's properties without the complexities of the full-length protein. The full-length ETS-related transcription factor Elf-3 (also known as ESE-1) is a transcriptional activator that binds to ETS sequences containing the GGA[AT] core motif. It functions synergistically with transcription factors such as POU2F3 and RUNX1 to regulate promoters including SPRR2A and ANGPT1. Elf-3 transactivates numerous gene promoters involved in inflammation, epithelial differentiation, and tumorigenesis, including collagenase, CCL20, CLND7, FLG, KRT8, NOS2, PTGS2, SPRR2B, TGFBR2, and TGM3, while repressing KRT4 promoter activity. It plays critical roles in vascular inflammation, epithelial cell differentiation, mammary gland development, and preimplantation embryonic development. Subcellular localization studies show Elf-3 is present in both the cytoplasm and nucleus, where it exhibits dual functionality: cytoplasmic localization is associated with transformation of mammary epithelial cells, while nuclear localization mediates transcription-dependent apoptosis in non-transformed breast epithelial cells.