Recombinant PEBB protein (His tag)

Catalog Number	540281
Synonyms	CBF-beta; Polyomavirus enhancer-binding protein 2 beta subunit; PEA2-beta; PEBP2-beta; SL3-3 enhancer factor 1 subunit beta; SL3/AKV core-binding factor beta subunit
Species	Human
Expression System	E. coli
Accession	Q13951
Molecular Weight	Predictes a molecular mass of 23.16 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 26 kDa band.

Product Information

Sequence Region	1-182
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 1-182 aa (Q13951) 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 Core-binding factor subunit beta (CBFB) Fragment (1-182) is a high-purity protein designed for structural and biochemical studies. This fragment represents a stable, soluble unit of CBFB, optimized for research on its role in transcriptional regulation and viral interactions. Core-binding factor subunit beta (CBFB) is a non-DNA-binding regulatory protein that forms heterodimeric complexes with RUNX family proteins (RUNX1, RUNX2, RUNX3) to enhance their DNA-binding affinity. These complexes recognize core consensus sequences (e.g., 5'-TGTGGT-3') in enhancers and promoters, regulating genes involved in immune response, viral pathogenesis, and cell differentiation. Notably, CBFB represses ZBTB7B during cytotoxic T cell development and is hijacked by HIV-1 Vif to form an E3 ubiquitin ligase complex, leading to degradation of antiviral APOBEC proteins (e.g., APOBEC3F, APOBEC3G). CBFB localizes to the nucleus, underscoring its role in transcriptional control. The fragment (residues 1-182) encompasses key functional regions, making it ideal for investigating CBFB's molecular mechanisms.