Recombinant AP2A protein (His tag)

Catalog Number	542028
Synonyms	AP2-alpha; AP-2 transcription factor; Activating enhancer-binding protein 2-alpha; Activator protein 2; AP-2
Species	Human
Expression System	E. coli
Accession	P05549
Molecular Weight	Predictes a molecular mass of 27.24 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 27 kDa band.

Product Information

Sequence Region	205-437
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 205-437 aa (P05549) 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 AP-2-alpha (AP2-alpha) Fragment (aa 205-437) is a highly stable and soluble protein unit designed for structural and biochemical studies. This fragment, derived from the well-characterized AP-2-alpha transcription factor, enables researchers to investigate DNA-binding mechanisms and transcriptional regulation with enhanced experimental reliability. Transcription factor AP-2-alpha is a sequence-specific DNA-binding protein that regulates gene expression by interacting with viral and cellular enhancer elements. It binds to the consensus sequence 5'-GCCNNNGGC-3', activating genes critical for eye, face, body wall, limb, and neural tube development while suppressing others such as MCAM/MUC18, C/EBP alpha, and MYC. AP-2-alpha plays an essential role in early lens vesicle morphogenesis and, together with coactivator CITED2, stimulates transcription from the PITX2 P1 promoter. The protein localizes to the nucleus, where it associates with chromatin at target promoter regions to modulate transcriptional activity.