Recombinant H33 protein (His tag)

Catalog Number	537928
Species	Human
Expression System	E. coli
Accession	P84243
Molecular Weight	Predictes a molecular mass of 13.40 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 13 kDa band.

Product Information

Sequence Region	36-136
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 36-136 aa (P84243) 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 Histone H3.3 (36-136) is a high-purity protein fragment engineered for structural and biochemical studies. This soluble and stable unit retains key functional characteristics, making it ideal for investigating chromatin dynamics, transcription regulation, and epigenetic mechanisms in active genes. Histone H3.3 is a variant histone in Homo sapiens that replaces conventional H3 in nucleosomes within transcriptionally active genes, serving as an epigenetic marker of active chromatin. It is incorporated into chromatin independently of DNA synthesis, predominantly in non-dividing cells, and is deposited at sites of nucleosomal displacement during transcription. By wrapping and compacting DNA into chromatin, Histone H3.3 plays a central role in regulating DNA accessibility, thereby influencing transcription, DNA repair, DNA replication, and chromosomal stability. These functions are modulated through post-translational modifications and nucleosome remodeling. The protein is localized in the nucleus and associated with chromosomes, underscoring its importance in genomic integrity and gene expression control.