Recombinant CBX7 protein (His tag)

Catalog Number	539643
Species	Human
Expression System	E. coli
Accession	O95931
Molecular Weight	Predictes a molecular mass of 10.50 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 11 kDa band.

Product Information

Sequence Region	1-74
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 1-74 aa (O95931) 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 Chromobox protein homolog 7 (CBX7) fragment (amino acids 1-74) is a high-purity protein preparation designed for chromatin biology research. This fragment specifically encompasses the complete Chromo domain (amino acids 11-69), making it an ideal tool for studying histone binding, epigenetic regulation, and Polycomb group protein function. Chromobox protein homolog 7 (CBX7) is a crucial component of Polycomb group (PcG) multiprotein PRC1-like complexes, which maintain the transcriptionally repressive state of numerous genes, including Hox genes, throughout development. The full-length protein functions through chromatin remodeling and histone modification, mediating monoubiquitination of histone H2A at 'Lys-119' and promoting histone H3 trimethylation at 'Lys-9' (H3K9me3). CBX7 binds to trimethylated lysine residues in histones and serves as a key regulator of cellular lifespan by maintaining repression of CDKN2A. The protein is exclusively localized to the nucleus, where it executes its epigenetic regulatory functions.