Recombinant CBX2 protein (His tag)

Catalog Number	542689
Species	Human
Expression System	E. coli
Accession	Q14781
Molecular Weight	Predictes a molecular mass of 10.48 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	>86%, 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 (Q14781) 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 Chromobox protein homolog 2 (CBX2) fragment (residues 1-74) from Homo sapiens, encompassing the essential Chromo domain. This high-purity protein is an ideal tool for investigating chromatin remodeling, histone modification, and transcriptional repression mechanisms in epigenetic research. Chromobox protein homolog 2 (CBX2) is a critical component of the Polycomb group (PcG) multiprotein PRC1-like complex, which maintains the repressive state of genes, including Hox genes, during development. It mediates monoubiquitination of histone H2A at 'Lys-119' and binds to histone H3 trimethylated at 'Lys-9' (H3K9me3) or 'Lys-27' (H3K27me3), facilitating chromatin remodeling and heritable gene silencing. CBX2 is localized in the nucleus and chromosomes, particularly in distinct chromatin foci and the inactive X chromosome, and plays roles in germ layer differentiation and sexual development by activating NR5A1 expression. The provided fragment includes the Chromo domain (residues 12-70), enabling focused studies on domain-specific interactions with modified histones and its contribution to epigenetic regulation.