

Recombinant CBX5 protein

Catalog No: 82154, 82754

Expressed In: *E. coli*

Quantity: 100, 1000 µg

Source: Human

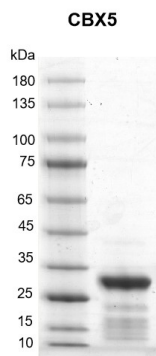
Buffer Contents: Recombinant CBX5 protein is supplied in 25 mM Tris pH 8.0, 300 mM NaCl, 20% glycerol, 0.5 mM TCEP.

Background: CBX5, widely known as **Heterochromatin Protein 1 alpha (HP1α)**, is a fundamental chromatin-associated protein that plays a pivotal role in establishing and maintaining transcriptionally repressive heterochromatin. It achieves this by specifically recognizing and binding to histone H3 trimethylated at lysine 9 (H3K9me3), a classic heterochromatin mark. This binding is essential for gene silencing, centromere and telomere function, genome stability, and proper higherorder chromatin organization. Dysregulation of CBX5/HP1α is consequently linked to cancer progression and various developmental disorders.

Protein Details: Recombinant CBX5 protein that includes full length of human CBX5 protein (accession number NP_036249.1) was expressed in *E. coli* and contains an N-terminal His&FLAG tag with a molecular weight of 25.66 kDa. The purity of the protein is ≥ 80% by SDS-PAGE.

Application Notes: This product was manufactured as described in Protein Details. Where possible, Active Motif has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for this product is shown.

Storage and Guarantee: Recombinant proteins in solution are temperature sensitive and must be stored at -80°C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. This product is for research use only and is not for use in diagnostic procedures. This product is guaranteed for 6 months from date of arrival.

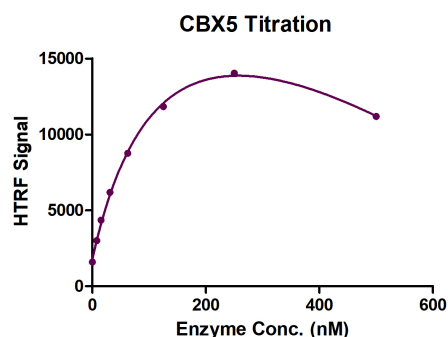


Recombinant CBX5 protein gel

4-20%% SDS-PAGE gel

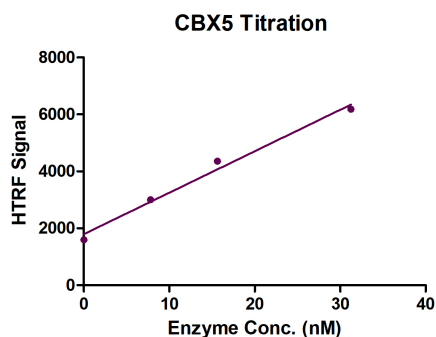
MW: 25.66 kDa

Purity: >80%



HTRF Assay for Recombinant CBX5 activity.

3 μ M H3K9me3 peptides was incubated with different concentrations of CBX5 protein in reaction buffer containing 50 mM HEPES NaOH pH 7.0, 0.1% BSA at room temperature for 1 hour . Anti-His antibody was used to detect reaction products.



HTRF Assay for Recombinant CBX5 activity.

3 μ M H3K9me3 peptides was incubated with different concentrations of CBX5 protein in reaction buffer containing 50 mM HEPES NaOH pH 7.0, 0.1% BSA at room temperature for 1 hour . Anti-His antibody was used to detect reaction products.