

PRODUCT INFORMATION



CBX3 (human recombinant)

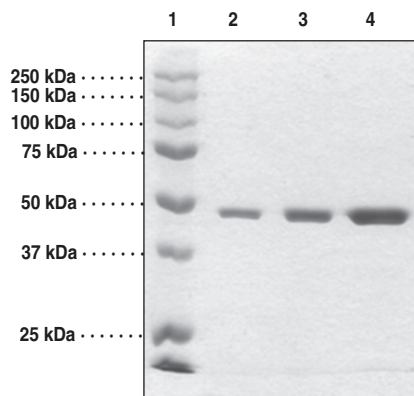
Item No. 15467

Overview and Properties

Synonyms:	Chromobox Protein Homolog 3, Heterochromatin Protein 1 Homolog γ , HP1- γ
Source:	Recombinant N-terminal GST-tagged protein expressed in <i>E. coli</i>
Amino Acids:	2-183 (full length)
Uniprot No.:	Q13185
Molecular Weight:	48.4 kDa
Storage:	-80°C (as supplied)
Stability:	≥ 6 months
Purity:	<i>batch specific</i> ($\geq 95\%$ estimated by SDS-PAGE)
Supplied in:	<i>batch specific</i>
Protein	
Concentration:	<i>batch specific</i> mg/ml
Activity:	<i>batch specific</i> U/ml
Specific Activity:	<i>batch specific</i> U/mg

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Image



Lane 1: MW Markers
Lane 2: CBX3 (2 μ g)
Lane 3: CBX3 (4 μ g)
Lane 4: CBX3 (6 μ g)

WARNING
THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA
This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the [complete](#) Safety Data Sheet, which has been sent via email to your institution.

WARRANTY AND LIMITATION OF REMEDY
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Description

The heterochromatin protein 1 (HP1) family, which consists of isoforms HP1- α (CBX5), HP1- β (CBX1), and HP1- γ (CBX3), are chromatin-associated proteins involved in gene regulation and heterochromatin formation.¹ CBX proteins have an N-terminal chromodomain, a C-terminal chromoshadow domain, and a hinge domain that connects the two.² Extensive post-translational modifications have been observed and mapped on the CBX proteins.³ The chromodomain of CBX3 has been shown to recognize methylated histone H3 lysine 9, methylated histone H1 lysine 26, and G9A methylated at lysine 185.⁴ CBX3 associates with the exons of a subset of actively transcribed genes, and loss of CBX3 results in accumulation of unspliced mRNA from that subset of genes.⁵⁻⁶ Further, CBX3 suppresses Nanog gene transcription in pre-induced pluripotent stem cells and long terminal repeat protein expression in HIV-1 infected cells.⁶⁻⁷ Knockdown of CBX3 by siRNA in cells latently infected with HIV-1 leads to virus reactivation.⁸ CBX3 has been proposed to be a biomarker for tumor stem cells in osteosarcoma.⁹

References

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