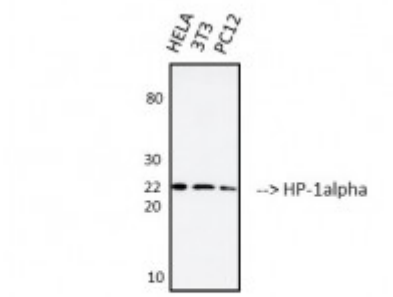
Anti-HP- alpha antibody



Western Blot (WB) analysis of 1. HELA 2. 3T3 3. PC12 cells using Anti-HP-1alpha antibody. (STJ98895)

Description	HP-1alpha is a protein encoded by the CBX5 gene which is approximately 22,2 kDa. HP-1alpha is localised to the nucleus. It is involved in chromatin regulation and acetylation, E2F mediated regulation of DNA replication and aurora B signalling. It is a highly conserved non-histone protein that falls under the heterochromatin protein family. It has a single N-terminal chromodomain which can bind to histone proteins via methylated lysine residues, and a C-terminal chromo shadow-domain which is responsible for the homodimerization and interaction with a number of chromatin-associated non-histone proteins. It is also involved in the formation of functional kinetochore through interaction with essential kinetochore proteins. HP-1alpha is expressed in the liver, nervous system, kidney, eye and intestine. Mutations in the CBX5 gene may result in Reynolds syndrome. STJ98895 was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. This primary antibody detects endogenous HP-1alpha protein.

Model	STJ98895
Host	Mouse
Reactivity	Human, Mouse, Rat
Applications	ELISA, WB
Immunogen	Recombinant peptide derived from HP-1alpha.
Gene ID	23468
Gene Symbol	CBX5
Dilution range	WB 1:500-2000ELISA 1:10000-20000
Specificity	The antibody detects endogenous HP-1alpha protein.

Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	Chromobox protein homolog 5 Antigen p25 Heterochromatin protein 1 homolog alpha HP1 alpha
Molecular Weight	22kDa
Clonality	Monoclonal
Conjugation	Unconjugated
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:1555OMIM:604478
Alternative Names	Chromobox protein homolog 5 Antigen p25 Heterochromatin protein 1 homolog alpha HP1 alpha
Function	Component of heterochromatin that recognizes and binds histone H3 tails methylated at 'Lys-9' (H3K9me), leading to epigenetic repression. In contrast, it is excluded from chromatin when 'Tyr-41' of histone H3 is phosphorylated (H3Y41ph). Can interact with lamin-B receptor (LBR). This interaction can contribute to the association of the heterochromatin with the inner nuclear membrane. Involved in the formation of functional kinetochore through interaction with MIS12 complex proteins.
Cellular Localization	Nucleus Chromosome Chromosome, centromere. Component of centromeric and pericentromeric heterochromatin. Associates with chromosomes during mitosis. Associates specifically with chromatin during metaphase and anaphase.
Post-translational Modifications	Phosphorylation of HP1 and LBR may be responsible for some of the alterations in chromatin organization and nuclear structure which occur at various times during the cell cycle . Phosphorylated during interphase and possibly hyper-phosphorylated during mitosis. Ubiquitinated.