

For Research Use Only

CBX5 Recombinant antibody, PBS Only (Detector)

Catalog Number: 83258-5-PBS



Basic Information

Catalog Number: 83258-5-PBS	GenBank Accession Number: BC006821	Purification Method: Protein A purification
Size: 100ug, Concentration: 1mg/ml by Nanodrop;	GeneID (NCBI): 23468	CloneNo.: 240145F11
Source: Rabbit	UNIPROT ID: P45973	
Isotype: IgG	Full Name: chromobox homolog 5 (HP1 alpha homolog, Drosophila)	
Immunogen Catalog Number: AG34810	Calculated MW: 191 aa, 22 kDa	
	Observed MW: 22 kDa	

Applications

Tested Applications:
WB, IHC, IF/ICC, FC (Intra), Cytometric bead array, Indirect ELISA

Species Specificity:
human, mouse, rat

Product Information

83258-5-PBS targets CBX5 as part of a matched antibody pair:

MP00181-3: 83258-2-PBS capture and 83258-5-PBS detection (validated in Cytometric bead array)

Unconjugated rabbit recombinant monoclonal antibody in PBS only (BSA and azide free) storage buffer at a concentration of 1 mg/mL, ready for conjugation. Created using Proteintech's proprietary in-house recombinant technology. Recombinant production enables unrivalled batch-to-batch consistency, easy scale-up, and future security of supply.

This conjugation ready format makes antibodies ideal for use in many applications including: ELISAs, multiplex assays requiring matched pairs, mass cytometry, and multiplex imaging applications. Antibody use should be optimized by the end user for each application and assay.

Background Information

Chromobox protein homolog 5 (CBX5), also named heterochromatin protein 1 alpha (HP1a), is a highly conserved nonhistone protein involved in heterochromatin formation and gene silencing in different species including humans. HP1a is a 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). It may interact with lamin-Breceptor. HP1a is involved in the formation of functional kinetochore through interaction with MIS12 complex proteins. Phosphorylation of HP1 and LBR during interphase mitosis may be responsible for some of the alterations in chromatin organization and nuclear structure which occur at various times during the cell cycle. The HP1a was expressed in nucleus and associates specifically with chromatin during metaphase and anaphase. Recent studies have shown that HP1a is present at many euchromatic sites and positively regulates euchromatic gene expression through RNA transcript association and interaction with hnRNPs in Drosophila (19798443).

Storage

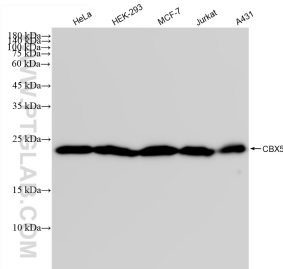
Storage:
Store at -80°C.

Storage Buffer:
PBS Only

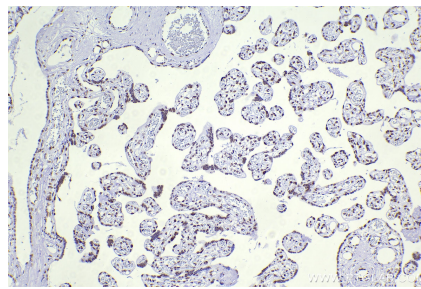
For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

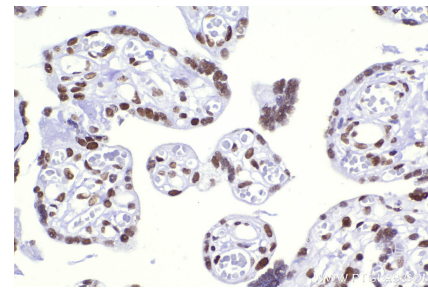
Selected Validation Data



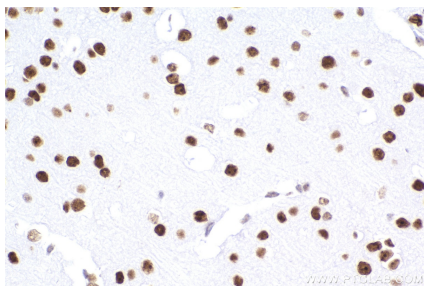
Various lysates were subjected to SDS PAGE followed by western blot with 83258-5-RR (CBX5 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours. This data was developed using the same antibody clone with 83258-5-PBS in a different storage buffer formulation.



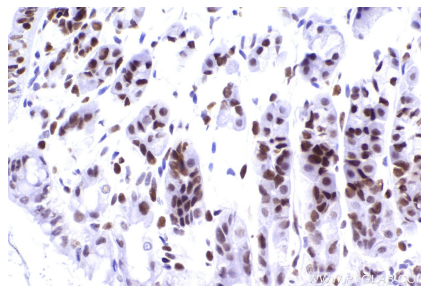
Immunohistochemical analysis of paraffin-embedded human placenta tissue slide using 83258-5-RR (CBX5 antibody) at dilution of 1:2000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 83258-5-PBS in a different storage buffer formulation.



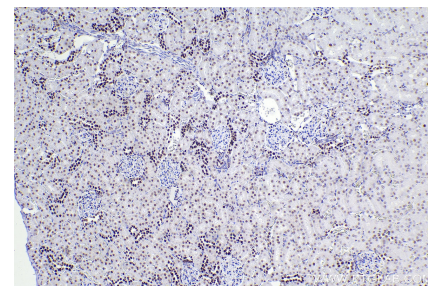
Immunohistochemical analysis of paraffin-embedded human placenta tissue slide using 83258-5-RR (CBX5 antibody) at dilution of 1:2000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 83258-5-PBS in a different storage buffer formulation.



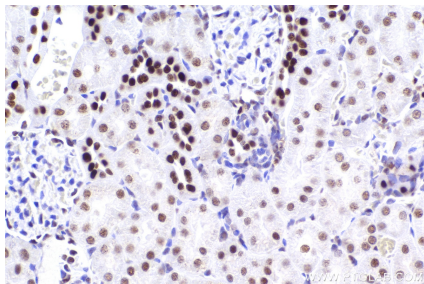
Immunohistochemical analysis of paraffin-embedded mouse brain tissue slide using 83258-5-RR (CBX5 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 83258-5-PBS in a different storage buffer formulation.



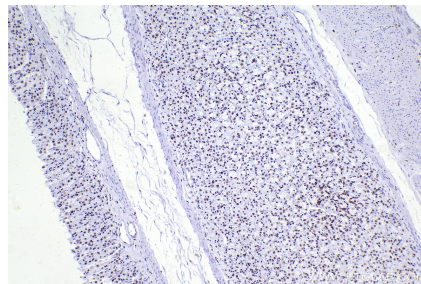
Immunohistochemical analysis of paraffin-embedded mouse stomach tissue slide using 83258-5-RR (CBX5 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 83258-5-PBS in a different storage buffer formulation.



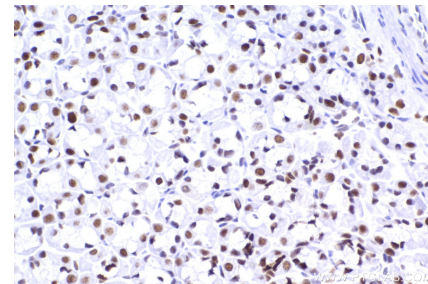
Immunohistochemical analysis of paraffin-embedded rat kidney tissue slide using 83258-5-RR (CBX5 antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 83258-5-PBS in a different storage buffer formulation.



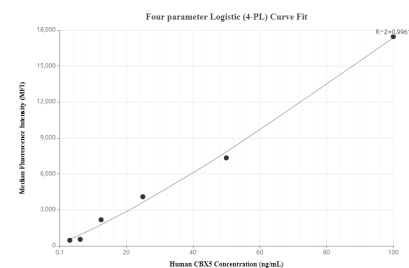
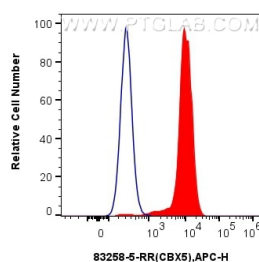
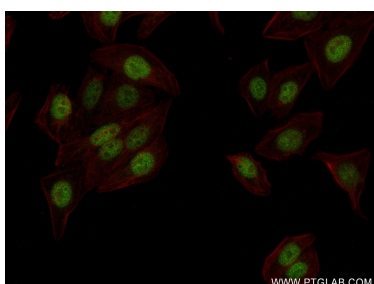
Immunohistochemical analysis of paraffin-embedded rat kidney tissue slide using 83258-5-RR (CBX5 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 83258-5-PBS in a different storage buffer formulation.



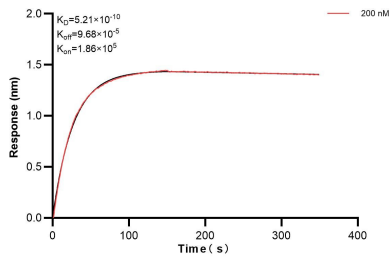
Immunohistochemical analysis of paraffin-embedded rat stomach tissue slide using 83258-5-RR (CBX5 antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 83258-5-PBS in a different storage buffer formulation.



Immunohistochemical analysis of paraffin-embedded rat stomach tissue slide using 83258-5-RR (CBX5 antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0). This data was developed using the same antibody clone with 83258-5-PBS in a different storage buffer formulation.

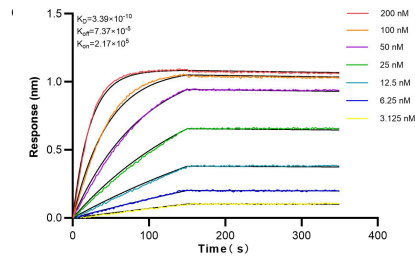


Immunofluorescent analysis of (4% PFA) fixed HepG2 cells using CBX5 antibody (83258-5-RR, Clone: 240145F11) at dilution of 1:400 and CoraLite®488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2), CL594-Phalloidin (red). This data was developed using the same antibody clone with 83258-5-PBS in a different



Biolayer interferometry (BLI) kinetic assay of 83258-5-PBS against Human CBX5 was performed. The affinity constant is 0.521 nM.

1×10^6 SH-SY5Y cells were intracellularly stained with 0.25 μ g CBX5 Recombinant antibody (83258-5-RR, Clone:240145F11) and APC-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L)(red), or 0.25 μ g Isotype Control (blue). Cells were fixed and permeabilized with True-Nuclear Transcription Factor Buffer Set. This data was developed using



Biolayer interferometry (BLI) kinetic assays of 83258-5-RR against Human CBX5 were performed. The affinity constant is 0.339 nM.

Cytometric bead array standard curve of MP00181-3, CBX5 Recombinant Matched Antibody Pair, PBS Only. Capture antibody: 83258-2-PBS. Detection antibody: 83258-5-PBS. Standard: Ag34810. Range: 3.125-100 ng/mL.