



Rabbit Anti-PBX1 antibody

SL12296R

Product Name:	PBX1
Chinese Name:	Blymphocyte白血病前体蛋白转录因子1抗体
Alias:	DKFZp686B09108; Homeo box protein PBX1; Homeo box protein PRL; Homeobox protein PBX 1; Homeobox protein PBX1; Homeobox protein PRL; MGC126627; PBX 1; Pbx1; PBX1_HUMAN; Pre B cell leukemia homeobox 1; Pre B cell leukemia transcription factor 1; Pre-B-cell leukemia transcription factor 1; PRL.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Chicken,Dog,Cow,Horse,Rabbit,Zebrafish,
Applications:	WB=1:500-2000ELISA=1:500-1000IHC-P=1:400-800IHC-F=1:400-800ICC=1:100-500IF=1:100-500 (Paraffin sections need antigen repair) not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	47kDa
Cellular localization:	The nucleus
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from Human PBX1:221-340/430
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Pbx 1, 2, 3 and 4 are members of the TALE (three amino acid loop extension) family of homeodomain-containing proteins. Human pre-B cell acute leukemias are frequently associated with a t(1;19)(q23;p13.3) chromosomal rearrangement, which creates a chimeric gene encoding a fusion between the E2A and Pbx 1 gene products. Pbx 2 and

Pbx 3 share 92% and 94% respective identities with Pbx 1 over a 266 amino acid region flanking their homeobox domains, while all three proteins are quite divergent at their amino- and carboxy-termini. Two forms of Pbx 1 and Pbx 3 each differ primarily in their carboxy-termini and result from alternative mRNA splicing. Unlike other homeotic selector genes which are expressed transiently during development and differentiation, Pbx gene transcripts are ubiquitously expressed in both fetal and adult tissues and cell lines. Additionally, Pbx 2 and Pbx 3 transcripts are detected in lymphoid cells, which do not express Pbx 1. Pbx 4 expression is confined to the testis, especially to spermatocytes in the pachytene stage of the first meiotic prophase.

Function:

Binds the sequence 5'-ATCAATCAA-3'. Acts as a transcriptional activator of PF4 in complex with MEIS1. Converted into a potent transcriptional activator by the (1;19) translocation. May have a role in steroidogenesis and, subsequently, sexual development and differentiation.

Subunit:

Forms a heterodimer with MEIS1 which binds DNA including a cAMP-responsive sequence in CYP17. Also forms heterotrimers with MEIS1 and a number of HOX proteins including HOXA9, HOXD4, HOXD9 and HOXD10. Interacts with PBXIP1 and TLX1. Isoform PBX1a interacts with MEIS2 isoform 4, SP1, SP3 and KLF4. Isoform PBX1b is part of a PDX1:PBX1b:MEIS2b complex; PBX1b recruits Meis2B to the complex.

Subcellular Location:

Nucleus.

Tissue Specificity:

Expressed in all tissues except in cells of the B and T lineage.

DISEASE:

Note=A chromosomal aberration involving PBX1 is a cause of pre-B-cell acute lymphoblastic leukemia (B-ALL). Translocation t(1;19)(q23;p13.3) with TCF3. E2A-PBX1 transforms cells by constitutively activating transcription of genes regulated by PBX1 or by other members of the PBX protein family.

Similarity:

Belongs to the TALE/PBX homeobox family.
Contains 1 homeobox DNA-binding domain.

SWISS:

P40424

Gene ID:

5087

Database links:

[Entrez Gene: 395505](#)Chicken

[Entrez Gene: 5087](#)Human

[Entrez Gene: 18514](#)Mouse

[Entrez Gene: 304947](#)Rat

[Omim: 176310](#)Human

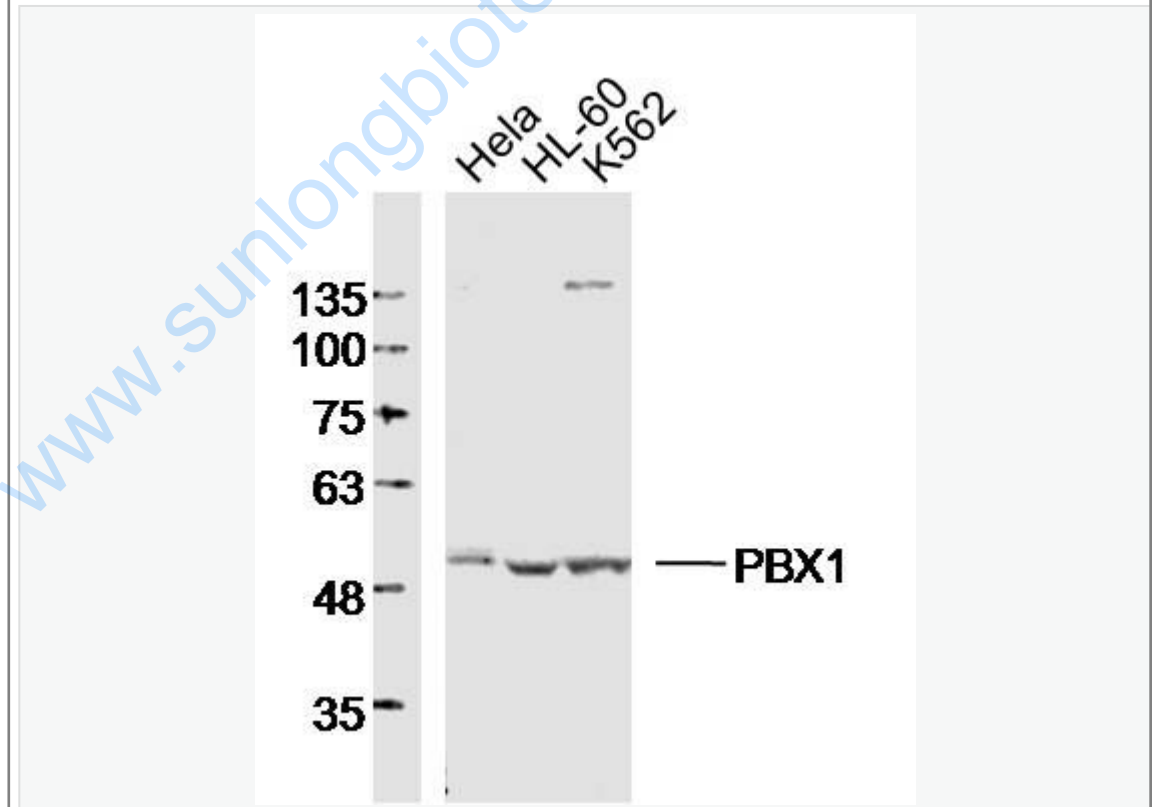
[SwissProt: P40424](#)Human

[SwissProt: P41778](#)Mouse

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Picture:



Sample:

HeLa Cell (Human) Lysate at 30 ug

HL-60 Cell (Human) Lysate at 30 ug

K562 Cell (Human) Lysate at 30 ug

Primary: Anti-PBX1 (SL12296R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 47kD

Observed band size: 50kD

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