

Product datasheet for **RC210944**

PBX1 (NM_002585) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PBX1 (NM_002585) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PBX1
Synonyms:	CAKUHD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide Sequence:

>RC210944 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGACGAGCAGCCAGGCTGATGCATTCCATGTGGGGTCGGGATGGCCGGACACCCCGCCTGTCCC
 AGCACTTCAGGATGGGGCCGGAGGGACCGAGGGGGAGGGCGGGAGGAAGCAGGACATTGGAGACATTTT
 ACAGCAAATTATGACCATCACAGACCAGAGTTTGGATGAGGCGCAGGCCAGAAAACATGCTTTAACTGC
 CACAGAATGAAGCCTGCCTTGTTTAATGTGTGTGAAATCAAAGAAAAACAGTTTTGAGTATCCGAG
 GAGCCCAGGAGGAACCCACAGACCCACAGCTGATGCGGCTGGACAACATGCTGTTAGCGGAAGGCGT
 GGCGGGGCTGAGAAGGGCGGAGGGTGGCGGCAGCGCGGCAGCGGGCGGCTTCTGGAGGGCAGGT
 TCAGACAACCTCAGTGGAGCATTAGATTACAGAGCCAACTCTCACAGATCAGACAACCTACCATACGG
 AGCTGGAGAAATACGAGCAGGCTGCAACGAGTTCACCACCCACGTGATGAATCTCTGCGAGAGCAAAG
 CCGGACCAGGCCATCTCCCAAAGGAGATTGAGCGGATGGTCAGCATCATCCACCGCAAGTTCAGTCC
 ATCCAGATGCAGCTCAAGCAGAGCAGTGCAGGCGGTGATGATCCTGCGTTCCCGATTTCTGGATGCGC
 GGCGGAAGAGACGGAATTTCAACAAGCAAGCGACAGAAATCCTGAATGAATATTTCTATTTCCCATCTCAG
 CAACCTTACCCAGTGAGGAAGCCAAAGAGGAGTTAGCCAAGAAGTGTGGCATCACAGTCTCCAGGTA
 TCAAACCTGGTTTGGAAATAAGCGAATCCGGTACAAGAAGAACATAGGTAATTTCAAGAGGAAGCCAATA
 TTTATGCTGCCAAAACAGCTGTCACTGTACCAATGTGTGAGCCCATGGAAGCCAAGCTAACTCGCCCTC
 AACTCCCAACTCGGCTGGTCTTCCAGTCTTTAACATGTCAAACCTCTGGAGATTTGTTTCATGAGCGTG
 CAGTCACTCAATGGGATTTCTTACCAAGGGGCCAGGTTGGAGCCAACGTGCAATCACAGGTGGATACCC
 TTCGCCATGTTATCAGCCAGACAGGAGGATACAGTGTGACTGCGAGCCAGTCAAGTGTACAGTCCGCA
 GGGCATCAGTGCTAATGGAGTTGGCAGGATGCTACTACCCCTTCATCAGTGACCTCCCTACAGAAGGC
 CCTGGCAGTGTTCACTCTGATACCTCCAAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC210944 protein sequence
 Red=Cloning site Green=Tags(s)

MDEQPRMLMHSAGVGMAGHPGLS QHLQDGAGGTEGEGGRKQDIGDILQQIMTITDQSLDEAQARKHALNC
 HRMKPALFNVLCEIKEKTVLSIRGAQEEPTDPQLMRLDNMLLAEGVAGPEKGGGSAAAAAAAAAASGGAG
 SDNSVEHSDYRAKLSQIRQIYHTELEKYEQACNEFTTHVMNLLREQSRTRPISPKEIERMVSIIHRKFSS
 IQMQLKQSTCEAVMILRSRFLDARRKRRNFNKQATEILNEYFYSHLSNPYPSEEAKEELAKKCGITVSQV
 SNWFGNKRIRYKKNIGKFQEEANIYAAKTAVTATNVSAHGSQANSPSTPNSAGSSSSFNMSNSGDLFMSV
 QSLNGDSYQGAQVGANVQSQVDTLRHVLSQTGGYSDGLAASQMYSPQGISANGGWQDATTSSVTSPTTEG
 PGSVHSDTSN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6130_f12.zip

Restriction Sites:

SgfI-MluI

Cloning Scheme:


ACCN: NM_002585

ORF Size: 1290 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

RefSeq: [NM_002585.4](#)

RefSeq Size: 6918 bp

RefSeq ORF: 1293 bp

Locus ID: 5087

UniProt ID: [P40424](#)

Cytogenetics: 1q23.3

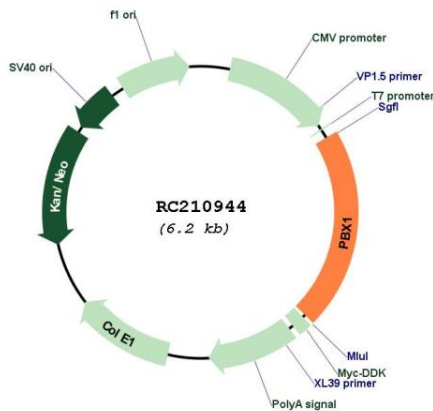
Domains: homeobox, PBX

Protein Families: Druggable Genome, Stem cell - Pluripotency, Transcription Factors

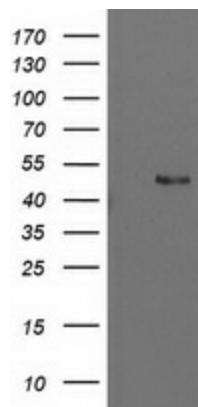
MW: 46.6 kDa

Gene Summary: This gene encodes a nuclear protein that belongs to the PBX homeobox family of transcriptional factors. Studies in mice suggest that this gene may be involved in the regulation of osteogenesis and required for skeletal patterning and programming. A chromosomal translocation, t(1;19) involving this gene and TCF3/E2A gene, is associated with pre-B-cell acute lymphoblastic leukemia. The resulting fusion protein, in which the DNA binding domain of E2A is replaced by the DNA binding domain of this protein, transforms cells by constitutively activating transcription of genes regulated by the PBX protein family. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2017]

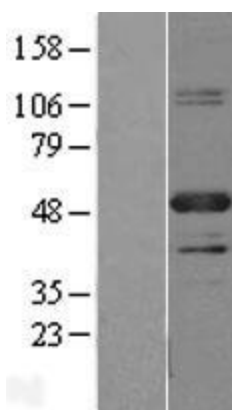
Product images:



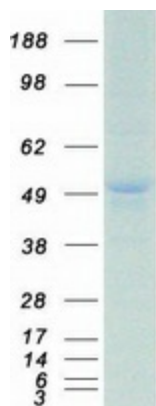
Circular map for RC210944



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PBX1 (Cat# RC210944, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-PBX1 (Cat# [TA503065]). Positive lysates [LY400918] (100ug) and [LC400918] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY400918]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210944 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PBX1 protein (Cat# [TP310944]). The protein was produced from HEK293T cells transfected with PBX1 cDNA clone (Cat# RC210944) using MegaTran 2.0 (Cat# [TT210002]).