

Product datasheet for **RG210944**

PBX1 (NM_002585) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PBX1 (NM_002585) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PBX1
Synonyms:	CAKUHD
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG210944 representing NM_002585 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACGAGCAGCCAGGCTGATGCATCCCATGCTGGGGTGGGATGGCCGGACACCCCGCCTGTCCC
AGCACTTCAGGATGGGGCCGAGGGACCGAGGGGAGGGCGGGAGGAAGCAGGACATTGGAGACATTTT
ACAGCAAATTATGACCATCACAGACCAGAGTTTGGATGAGGCGCAGGCCAGAAAACATGCTTTAAACTGC
CACAGAATGAAGCCTGCCTTGTAAATGTGTGTGAAATCAAAGAAAAACAGTTTGTAGTATCCGAG
GAGCCCAGGAGGAGAACCCACAGACCCCGAGCTGATGCGGCTGGACAACATGCTGTTAGCGGAAGGCGT
GGCGGGGCTGAGAAGGGCGGAGGGTCGGCGGCAGCGGCGCAGCGGCGGCTTCTGGAGGGCAGGT
TCAGACAACCTCAGTGGAGCATTACAGATTACAGAGCCAACTCTCACAGATCAGACAAATCTACCATACGG
AGCTGGAGAAATACGAGCAGGCTGCAACGAGTTCACCACCCACGTGATGAATCTCTGCGAGAGCAAAG
CCGGACCAGGCCATCTCCCAAAGGAGATTGAGCGGATGGTCAGCATCATCCACCAGCAAGTTCAGCTCC
ATCCAGATGCAGCTCAAGCAGAGCAGTGCAGGCGGTGATGATCCTGCGTTCCCGATTTCTGGATGCGC
GGCGGAAGAGACGGAATTTCAACAAGCAAGCGACAGAAATCCTGAATGAATTTCTATTCCCATCTCAG
CAAACCTTACCCAGTGAGGAAGCCAAAGAGGAGTTAGCCAAGAAGTGTGGCATCACAGTCTCCAGGTA
TCAAACCTGTTTGGAAATAGCGAATCCGGTACAAGAAGAACATAGGTAATTTCAAGAGGAAGCCAA
TTTATGCTGCCAAAACAGCTGTCACTGCTACCAATGTGTGACGCCATGGAAGCCAAGCTAACTCGCCCTC
AACTCCAACTCGGCTGTTCTTCCAGTCTTTTAAACATGTCAAACCTCTGGAGATTTGTTATGAGCGTG
CAGTCACTCAATGGGATTCTTACCAAGGGGCCAGGTTGGAGCCAACGTGCAATCACAGGTGGATACCC
TTCGCCATGTTATCAGCCAGACAGGAGGATACAGTGTGACTCGCAGCCAGTCAGATGTACAGTCCGCA
GGGCATCAGTGCTAATGGAGTTGGCAGGATGCTACTACCCCTTCATCAGTGACCTCCCTACAGAAGGC
CCTGGCAGTGTTCACTCTGATACCTCCAAC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG210944 representing NM_002585
 Red=Cloning site Green=Tags(s)

MDEQPRLMHSAGVGMAGHPGLSQHLQDGAGGTEGEGGRKQDIGDILQQIMTITDQSLDEAQARKHALNC
 HRMKPALFNVLCEIKEKTVLSIRGAQEEPTDPLMRLDNMLLAEGVAGPEKGGGSAASGGAG
 SDNSVEHSDYRAKLSQIRQIYHTELEKEYEQACNEFTTHVMNLLREQSRTRPISPKEIERMVSIIHRKFSS
 IQMQLKQSTCEAVMILRSRFLDARRKRRNFNKQATEILNEYFYSHLSNPYPSEEAKEELAKKCGITVSQV
 SNWFGNKRIRYKKNIGKFQEEANIYAAKTAVTATNVSAHGSQANSPSTPNASAGSSSFNMSNSGDLFMSV
 QSLNGDSYQGAQVGANVQSQVDTLRHVISQTTGGYSDGLAASQMYSPQGISANGGWQDATTSSVTSPTTEG
 PGSVHSDTSN

TRTRPLE – GFP Tag – V

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: 1819 bp

RefSeq ORF: 1293 bp

Locus ID: 5087

UniProt ID: [P40424](#)

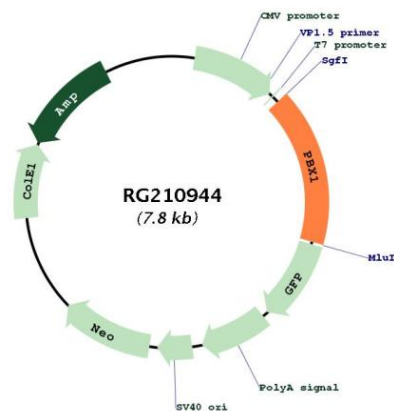
Cytogenetics: 1q23.3

Domains: homeobox, PBX

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

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 RG210944