

Recombinant Full Length Human PBX homeobox 1 Protein, His&T7 tagged

Cat. No. PBX1-13HFL Lot. No. (See product label)

SPECIFICATION

Product Overview	Full-length human PBX1 cDNA (429 aa. Isoform-1) was constructed with codon optimization using gene synthesis technology and expressed with a small T7-His-TEV cleavage site Tag (29 aa) fusion at its N-terminal in E. coli as inclusion bodies.
Species	Human
Source	E.coli
ProteinLength	1-430 aa
Description	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.
Tag	His&T7
Form	Sterile-filtered liquid

 Tel: 1-631-559-9269 1-516-512-3133

 Email: info@creative-biomart.com  Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

AA Sequence	MASMTGGGQMGRGHHHHHHENLYFQGGEFDEQPRLMHSAGVGMAGHPGLSQ HLQDGAGGTEGEGGRKQDIGDILQQIMTITDQSLDEAQARKHALNCHRMKPALFNV LCEIKEKTVLSIRGAQEEPTDPQLMRLDNMLLAEGVAGPEKGGGSAAAAAAAAS GGAGSDNSVEHSDYRAKLSQIRQIYHTELEKYEACNEFTTHVMNLLREQSRTRPIS PKEIERMVSIIHRKFSSIQMLKQSTCEAVMILRSRFLDARRKRRNFNKQATEILNEYF YSHLSNPYPSEEAKEELAKKCGITVSQVSNWFGNKRIRYKKNIGKFQEEANIYAAKTA VTATNNSAHGSQANSPSTPNSAGSSSSFNMSNSGDLFMSVQSLNGDSYQGAQVG ANVQSQVDTLRHVISQTGGYSDGLAASQMYSPQGISANGGWQDATTTPSSVTSPTE GPGSVHSDTSN
Purity	> 90% by SDS-PAGE
Applications	1. May be used for study PBX1 mediated gene transcription regulation for endothelial to HSC differentiation in vitro by intracellular delivery of recombinant PBX1 protein using protein-delivery reagent. 2. May be used for mapping PBX1 protein-protein interaction. 3. May be used as specific substrate protein for kinase, and ubiquitin (Sumo pathway) related enzyme functional screening assays. 4. High purified native PBX1 protein, which may be used for specific antibody production. 5. Potential biomarker protein for cancer prognosis, such as gastric & breast cancer, et al.
Storage	Keep at -80 centigrade for long term storage. Product is stable at 4 centigrade for at least two weeks.
Storage Buffer	20 mM pH 8.0 Tris-HCl Buffer, with proprietary formulation of NaCl, KCl, EDTA, DTT, Sucrose and others.
Concentration	0.3 mg/mL

GENE INFORMATION

Gene Name	PBX1 PBX homeobox 1 [Homo sapiens (human)]
Official Symbol	PBX1
Synonyms	PBX1; PBX homeobox 1; CAKUHD; pre-B-cell leukemia transcription factor 1; homeobox protein PBX1; homeobox protein PRL; pre-B-cell leukemia homeobox 1
Gene ID	5087
mRNA Refseq	NM_002585
Protein Refseq	NP_002576
MIM	176310
UniProt ID	P40424

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