

Product datasheet for RC222785

PAX5 (NM_016734) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Tag:	Myc-DDK
Symbol:	PAX5
Synonyms:	ALL3; BSAP
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC222785 representing NM_016734 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGATTTAGAGAAAAATTATCCGACTCCTCGGACCAGCAGGACAGGACATGGAGGAGTGAATCAGCTTG
 GGGGGGTTTTGTGAATGGACGGCCACTCCCGGATGTAGTCCGCCAGAGGATAGTGAACCTTGCTCATCA
 AGGTGTCAGGCCCTGCGACATCTCCAGGCAGCTTCGGGTGAGCCATGGTTGTGTCAGCAAAATCTTGCC
 AGGTATTATGAGACAGGAAGCATCAAGCCTGGGGTAATTGGAGGATCCAAACCAAGGTGCGCCACACCCA
 AAGTGGTGGAATAATCGCTGAATATAAACGCCAAATCCCACCATGTTTGCCTGGGAGATCAGGGACCG
 GCTGCTGGCAGAGCGGGTGTGTGACAATGACACCGTGCCTAGCGTCAGTTCCATCAACAGGATCATCCGG
 AAAAAAGTACAGCAGCCACCAACCAACAGTCCAGCTTCCAGTCACAGCATAGTGTCCACTGGCTCCG
 TGACGCAGGTGTCCTCGGTGAGCACGGATTCCGGCCGGCTCGTCGTAATCCATCAGCGGCATCCTGGGCAT
 CACGTCCCCCAGCGCCGACCAACAAGCGCAAGAGAGACGAAGTATTCAGGAGTCTCCGGTGCCGAAC
 GGCCACTCGCTTCGGGCAGAGACTTCTCCGGAAGCAGATGCGGGGAGACTTGTTACACAGCAGCAGC
 TGGAGGTGCTGGACCGCGTGTGAGAGGCAGCACTACTCAGACATCTTACCACCACAGAGCCCATCAA
 GCCCGAGCAGACCACAGAGTATTCAGCCATGGCCTCGCTGGCTGGTGGGCTGGACGACATGAAGGCCAAT
 CTGGCCAGCCCCACCCCTGCTGACATCGGGAGCAGTGTGCCAGGCCCGCAGTCCTACCCCATTTGTGACAG
 GCCGTGACTTGGCGAGCAGACCCCTCCCGGGTACCCTCCACACGTCCCCCGCTGGACAGGGCAGCTA
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 TATTCTCGTACAACGACTCCTGGAGGTTCCCCAACCCGGGGCTGCTTGCTCCCCCTATTATTATAGCG
 CTGCCGCCGAGGAGCGCCCACTGCAGCCGCCACTGCCTATGACCGTCAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA


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Protein Sequence: >RC222785 representing NM_016734
 Red=Cloning site Green=Tags(s)

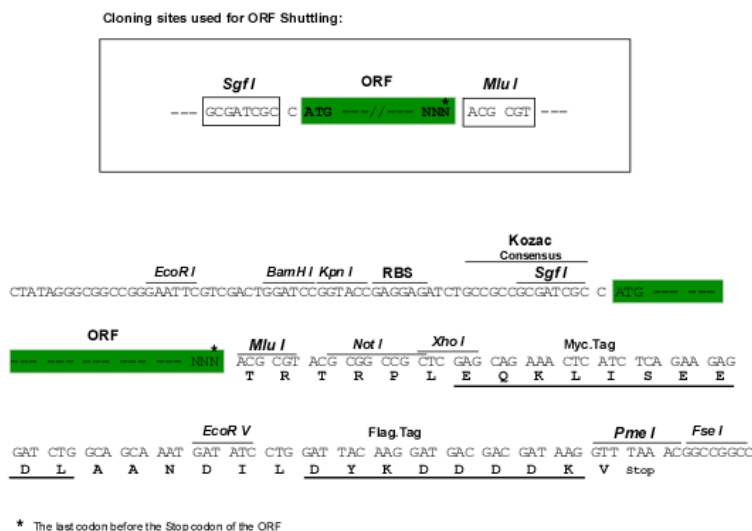
MDLEKNYPTPRTSRTGHGGVNQLGGVFVNGRPLPDVVRQRIVELAHQGVPCDISRQLRVSHGCVSKILG
 RYYETGSIKPGVIGGSKPKVATPKVVEKIAEYKRQNTMFAWEIRDRLAERVCNDTVPVSSINRIIR
 TKVQQPPNQVPASSHSIVSTGSVTQVSSVSTDSAGSSYSISGILGITSADTNKRKRDEGIQESVVPN
 GHSLPGRDFLRKQMRGDLFTQQQLEVLDRVFERQHYSDIFTTTEPIKPEQTTEYSAMASLAGGLDDMKAN
 LASPTPADIGSSVPGPQSYPIVTGRDLASTTLPGYPHPVPPAGQGSYSAPTLTGMVPGSEFSGSPYSHPQ
 YSSYNDSWRFNPNGLLGSPYYYSAARGAAPPAATAYDRH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6504_e09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_016734

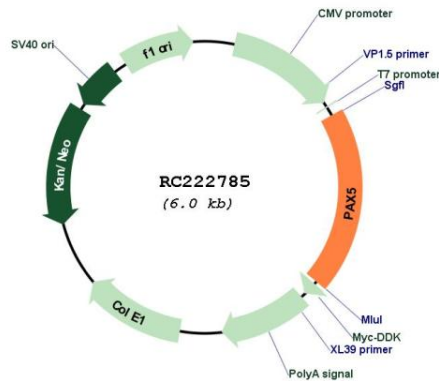
ORF Size: 1173 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

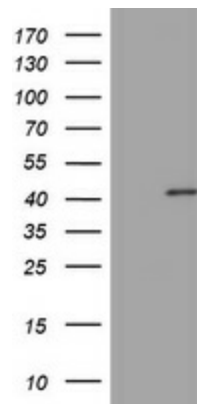
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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:	<ol style="list-style-type: none"> 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.
Note:	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
RefSeq:	NM_016734.3
RefSeq Size:	3650 bp
RefSeq ORF:	1176 bp
Locus ID:	5079
UniProt ID:	Q02548
Cytogenetics:	9p13.2
Protein Families:	Transcription Factors
MW:	42 kDa
Gene Summary:	<p>This gene encodes a member of the paired box (PAX) family of transcription factors. The central feature of this gene family is a novel, highly conserved DNA-binding motif, known as the paired box. Paired box transcription factors are important regulators in early development, and alterations in the expression of their genes are thought to contribute to neoplastic transformation. This gene encodes the B-cell lineage specific activator protein that is expressed at early, but not late stages of B-cell differentiation. Its expression has also been detected in developing CNS and testis and so the encoded protein may also play a role in neural development and spermatogenesis. This gene is located at 9p13, which is involved in t(9;14)(p13;q32) translocations recurring in small lymphocytic lymphomas of the plasmacytoid subtype, and in derived large-cell lymphomas. This translocation brings the potent E-mu enhancer of the IgH gene into close proximity of the PAX5 promoter, suggesting that the deregulation of transcription of this gene contributes to the pathogenesis of these lymphomas. Alternative splicing results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Jul 2013]</p>

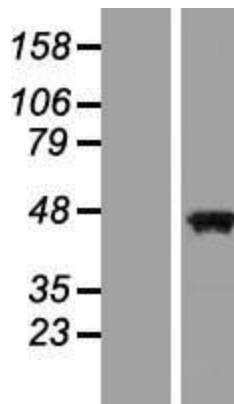
Product images:



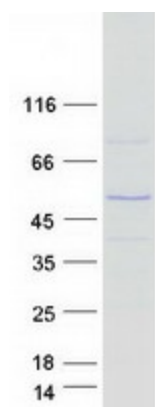
Circular map for RC222785



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PAX5 (Cat# RC222785, 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-PAX5 (Cat# [TA801884]). Positive lysates [LY413830] (100ug) and [LC413830] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY413830]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222785 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PAX5 protein (Cat# [TP322785]). The protein was produced from HEK293T cells transfected with PAX5 cDNA clone (Cat# RC222785) using MegaTran 2.0 (Cat# [TT210002]).