

Product datasheet for RC214129

PAX8 (NM_013952) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PAX8 (NM_013952) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PAX8
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC214129 representing NM_013952 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGCCTCACAACCTCCATCAGATCTGGCCATGGAGGGCTGAACCAGCTGGGAGGGGCTTTGTGAATGGCA
GACCTCTGCCGGAAGTGGTCCGCCAGCGCATCGTAGACCTGGCCACCAGGGTGTAAAGCCCTGCGACAT
CTCTCGCCAGCTCCGCGTCAGCCATGGCTGCGTCAGCAAGATCCTTGGCAGGTAACGAGACTGGCAGC
ATCCGGCTGGAGTGATAGGGGGCTCCAAGCCCAAGGTGGCCACCCCAAGGTGGTGGAGAAGATTGGGG
ACTACAAAACGCCAGAACCCTACCATGTTTGCCTGGGAGATCCGAGACCGGCTCCTGGCTGAGGGCGTCTG
TGACAATGACACTGTGCCAGTGTGAGCTCCATTAATAGAATCATCCGGACCAAAGTGCAGCAACCATT
AACCTCCCTATGGACAGCTGCGTGGCCACCAAGTCCCTGAGTCCCGGACACACGCTGATCCCCAGCTCAG
CTGTAACCTCCCGGAGTCACCCAGTCGGATTCCCTGGGCTCCACCTACTCCATCAATGGGCTCCTGGG
CATCGCTCAGCCTGGCAGCGACAAGAGGAAAATGGATGACAGTGATCAGGATAGCTGCCGACTAAGCATT
GACTCACAGAGCAGCAGCAGCGGACCCCGAAAAGCACCTTCGCACGGATGCCTTCAGCCAGCACCACTCG
AGCCGCTCGAGTGCCATTTGAGCGGCAGCACTACCCAGAGGCCATGCCTCCCCAGCCACACCAAAGG
CGAGCAGGGCCTCTACCCGCTGCCCTTGCTCAACAGCACCTGGACGACGGGAAGGCCACCTGACCCCT
TCCAACACGCCACTGGGGCGAACCTCTCGACTACCAGACCTACCCCGTGGTGGCAGCTCCGCCTTTT
GGATCTGCAGCAAGTCGGCTCCGGGGTCCCGCCCTTCAATGCCTTCCCCATGCTGCCTCCGTGTACGGG
CAGTTCACGGGCCAGGCCCTCCTCTCAGGGCGAGAGATGGTGGGGCCACGCTGCCCGGATACCCACCC
ACATCCCCACAGCGGACAGGGCAGCTATGCCTCCTGCCATCGCAGGCATGGTGGCAGGAAGTGAATA
CTCTGGCAATGCCTATGGCCACACCCCTACTCCTCTACAGCGAGGCCCTGGCGCTTCCCAACTCCAGC
TTGC

ACGCGTACGCGGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC214129 representing NM_013952
Red=Cloning site Green=Tags(s)

MPHNSIRSGHGGLNQLGGAFVNGRPLPEVVRQRIVDLAHQGVRPCDISRQLRVSHGCVSKILGRYYETGS
 IRPGVIGGSKPKVATPKVVEKIGDYKRQNTMFAWEIRDRLAEGVCDNDTVPSVSSINRIIRTKVQPPF
 NLPMDSCVATKSLSPGHTLIPSSAVTPPESPQSDSLGSTYSINGLLGIAQPGSDKRKMDSDSDSCRLSI
 DSQSSSSGPRKHLRTDAFSQHLEPLECFERQHYPEAYASPSHTKGEQGLYPLPLLNSTLDDGKATLTP
 SNTPLGRNLSTHQTYPVVAAPPFWICSKSAPGSRPMPFPMLPPCTGSSRARPPSSQGERWWGPRCPDTHP
 TSPPADRAAMPPLPSQAWWQEVNTLAMPATPPTPTARPGASPTPAC

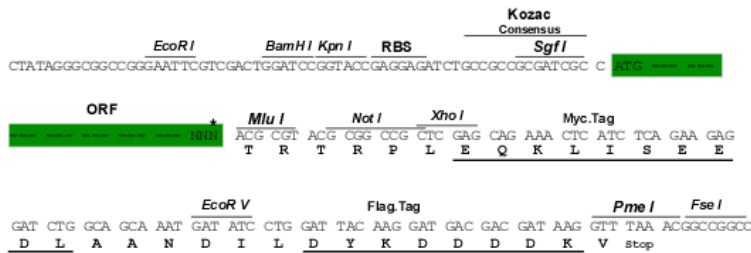
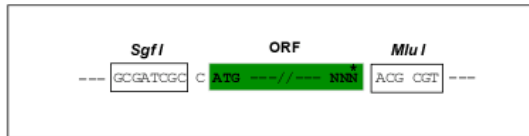
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk8057_c02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_013952

ORF Size: 1194 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_013952.4](#)

RefSeq Size: 3986 bp

RefSeq ORF: 1197 bp

Locus ID: 7849

UniProt ID: [Q06710](#)

Cytogenetics: 2q14.1

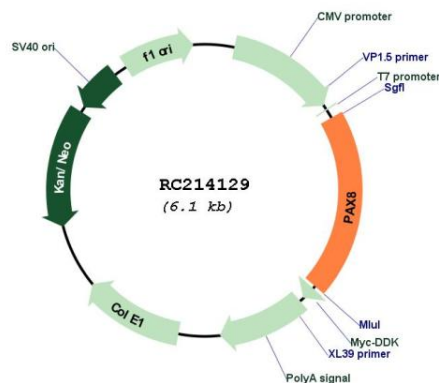
Protein Families: Druggable Genome, Transcription Factors

Protein Pathways: Pathways in cancer, Thyroid cancer

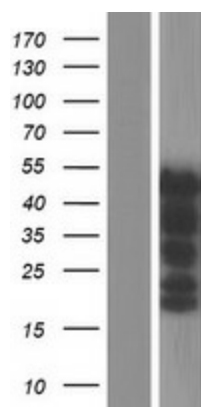
MW: 42.8 kDa

Gene Summary: This gene encodes a member of the paired box (PAX) family of transcription factors. Members of this gene family typically encode proteins that contain a paired box domain, an octapeptide, and a paired-type homeodomain. This nuclear protein is involved in thyroid follicular cell development and expression of thyroid-specific genes. Mutations in this gene have been associated with thyroid dysgenesis, thyroid follicular carcinomas and atypical follicular thyroid adenomas. Alternatively spliced transcript variants encoding different isoforms have been described. [provided by RefSeq, Mar 2010]

Product images:



Circular map for RC214129



Western blot validation of overexpression lysate (Cat# [LY415550]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214129 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).