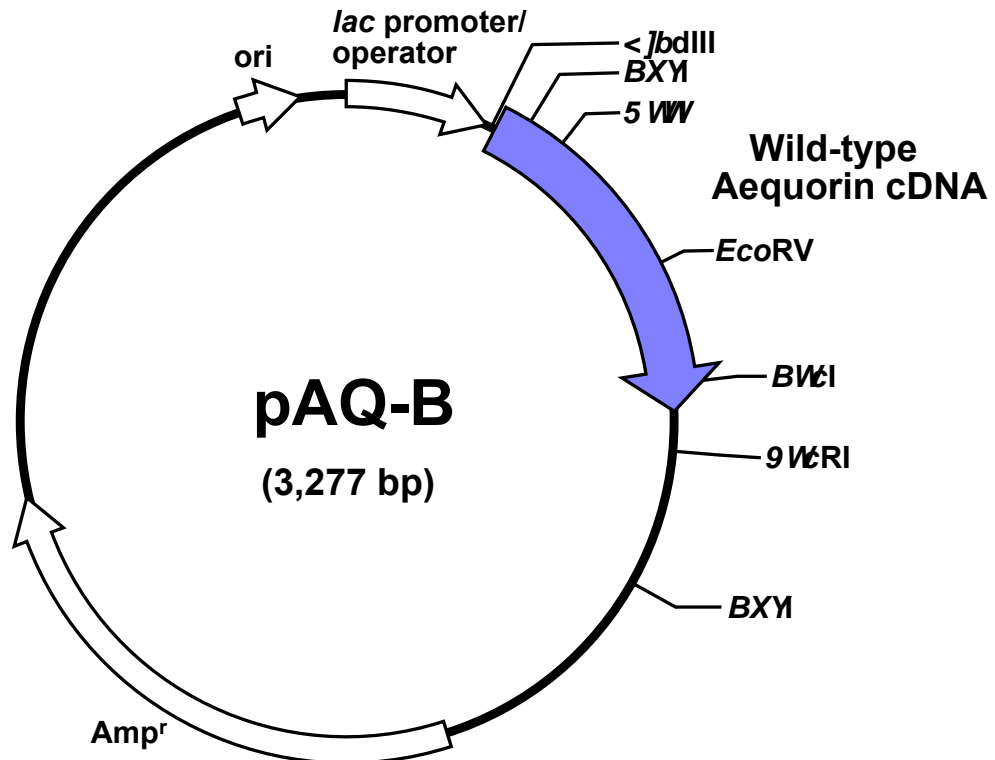


pAQ-B	
Cat. No.	P-007
Gene/Insert name:	Wild-type Aequorin (<i>A. victoria</i>) (<i>Hind</i> III- <i>Eco</i> RI from pAQ440: Δ <i>Bam</i> HI)
Vector backbone:	pUC9-2
Vector type:	<i>E. coli</i>
Backbone size w/o insert (bp):	2,656
Bacterial resistance:	Ampicillin
Growth strain:	JM83
Growth temperature (°C):	37
Growth instructions:	pAQ-B is resistant to ampicillin (50 µg/mL)
High or low copy:	High copy
Vector map:	pAQ-B
Coding sequence:	Nucleotide sequence & Amino acid sequence
Plasmid sequence:	pAQ-B (3,277 bp)
Restriction enzyme list:	Restriction enzyme sites of pAQ-B
GenBank Accession No.:	pAQ440: L29571
Size:	10 µg
Terms and Licenses:	MTA
Laboratory Reagent For Research Use Only	

Ca²⁺-Binding Photoprotein, Aequorin

Cat. No. P-007

Name: pAQ-B
 Insert: Wild-type Aequorin cDNA
 (*Hind*III-*Eco*RI from pAQ440: Δ*Bam*HI)
 Vector: pUC9-2



• DNA fragment:
 M T M I T P S C K L T S D --- A V P ***
 atgaccatgattacgccaagctgcaagcttACA-TCA-GAC-.....-GCT-GTC-CCC-TAA
*Hind*III

• Feature for pAQ-B:

Residue	Source	Comments
1-245	1-245	pUC9-2 backbone
1-230	1-230	<i>lac</i> promoter/operator
246-803	1-558	Wild-type Aequorin ORF
867-3,277	285-2,695	pUC9-2 backbone
3,104	2,522	<i>ori</i> : Origin of replication
1,476-2,336	894-1,754	<i>Amp^r</i> : Ampicillin resistance gene

Ref.

1) pAQ440: Aequorin amino acid seq. & cDNA seq.: GenBank Accession No. L29571
 Inouye, S. *et al. Proc. Natl. Acad. Sci. USA* (1985) 82: 3154-3158.

Gene coding region (ORF: Aequorin)

Nucleotide sequence

ATGACCATGATTACGCCAAGCTGCAAGCTTACATCAGACTTCGACAACCCAAGATGGATTGGACGACACA
AGCATATGTTCAATTTCTTGATGTCAACCACAATGGAAAAATCTCTCTTGACGAGATGGTCTACAAGGC
ATCTGATATTGTCATCAATAACCTTGGAGCAACACCTGAGCAAGCCAAACGACACAAAGATGCTGTAGAA
GCCTTCTTCGGAGGAGCTGGAATGAAATATGGTGTGGAAACTGATTGGCCTGCATATATTGAAGGATGGA
AAAAATTGGCTACTGATGAATTGGAGAAATACGCCAAAAACGAACCAACGCTCATCCGTATATGGGGTGA
TGCTTTGTTTGGATATCGTTGACAAAGATCAAAATGGAGCCATTACACTGGATGAATGGAAAGCATAACCC
AAAGCTGCTGGTATCATCCAATCATCAGAAGATTGCGAGGAAACATTCAGAGTGTGCGATATTGATGAAA
GTGGACAACCTCGATGTTGATGAGATGACAAGACAACATTTAGGATTTTGGTACACCATGGACCTGCTTG
CGAAAAGCTCTACGGTGGAGCTGTCCCC**TAA**GAAGCTCTACGGTGGTGGATGCACCCTAGGAAGATGATGT
GATTTTGAATAAAAACACTGATGAATTC

Amino acid sequence

MTMITPSCKLTSDFDNPRWIGRHKHMFNFLDVNHNGKISLDEMVKASDIVINNLGATPEQAKRHKDAVE
AFFGGAGMKYGVETDWPAYIEGWKKLATDELEKYAKNEPTLIRIWGDALFDIVDKDQNGAITLDEWKAYT
KAAGIIQSSDCEETFRVCDIDESGQLDVDEMTRQHLLGFWYTMDPACEKLYGGAVP*

pAQ-B (3,277 bp)

GCGCCCAATACGCAAACC GCCTCTCCCCGCGCGTTGGCCGATTCATTAATGCAGCTGGCAGCAGAGTTT
 CCCGACTGGAAAAGCGGGCAGTGAGCGCAACGCAATTAATGTGAGTTAGCTCACTCATTAGGCACCCCAGG
 CTTTACACTTTATGCTTCCGGCTCGTATGTTGTGTGGAATTTGTGAGCGGATAACAATTTACACAGGAAA
 CAGCTATGACCATGATTACGCCAAGCTGCAAGCTTACATCAGACTTCGACAACCCAAGATGGATTGGACG
 ACACAAGCATATGTTCAATTTCCCTTGATGTCAACCACAATGGAAAAATCTCTCTTGACGAGATGGTCTAC
 AAGGCATCTGATATTGTCATCAATAACCTTGGAGCAACACCTGAGCAAGCCAAACGACACAAAGATGCTG
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 GGTGATGCTTTGTTTGATATCGTTGACAAAAGATCAAAATGGAGCCATTACACTGGATGAATGGAAAGCAT
 ACACCAAAGCTGCTGGTATCATCCAATCATCAGAAGATTGCGAGGAAACATTACAGAGTGTGCGATATTGA
 TGAAAGTGGACAACCTCGATGTTGATGAGATGACAAGACAACATTTAGGATTTTGGTACACCATGGACCT
 GCTTGGCAAAAAGCTCTACGGTGGAGCTGTCCCTTAAAGAGCTCTACGGTGGTGTATGCACCCTAGGAAGAT
 GATGTGATTTTGAATAAAACACTGATGAATTCGCAATTCACCTGGCCGTCGTTTTTACAACGTCGTGACTG
 GGAAAACCTGGCGTTACCCAACCTTAATCGCCTTGCAGCACATCCCCCTTTCGCCAGCTGGCGTAATAGC
 GAAGAGCCCCGACCGATCGCCCTTCCAACAGTTGCGCAGCCTGAATGGCGAATGGCCCACTGATGCGGT
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 CCGGCATCCGCTTACAGACAAGCTGTGACCGTCTCCGGGAGCTGCATGTGTGAGAGGTTTTTACCCTCAT
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 CGGAGCCTATGGAAAAACGCCAGCAACGCGGCCCTTTTTACGGTTCTTGGCCTTTTTGCTGGCCTTTTGCTC
 ACATGTTCTTTCTGCGTTATCCCTGATTTCTGTGGATAACCGTATTACCAGCTTTTGGTGGAGCTGATAC
 CGCTCGCCGACCGAAGCAGCCGAGCGCAGCGAGTCAAGTGGAGCGAGGAAGCGGAAGA

Residue	Source	Comments
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867-3,277	285-2,695	pUC9-2 backbone
3,104	2,522	ori: Origin of replication
1,476-2,336	894-1,754	Amp ^r : Ampicillin resistance gene

Restriction enzyme sites of pAQ-B

Enzyme Name	Sequence	Count	Cutting Positions
AccI	GT!MKAC	1	347
ApaI	GGGCC!C	0	-
Asp718I	G!GTACC	0	-
BamHI	G!GATCC	0	-
BclI	T!GATCA	0	-
BglII	A!GATCT	0	-
EcoRI	G!AATTC	1	868
EcoRV	GAT!ATC	1	579
HincII	GTY!RAC	2	312, 585
HindIII	A!AGCTT	1	241
KpnI	GGTAC!C	0	-
MluI	A!CGCGT	0	-
NcoI	C!CATGG	1	761
NdeI	CA!TATG	2	290, 1090
NheI	G!CTAGC	0	-
NotI	GC!GGCCGC	0	-
PstI	CTGCA!G	0	-
SacI	GAGCT!C	0	-
SalI	G!TCGAC	0	-
ScaI	AGT!ACT	1	1783
SmaI	CCC!GGG	0	-
StuI	AGG!CCT	0	-
XbaI	T!CTAGA	0	-
XhoI	C!TCGAG	0	-

Supplier	Contact us
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