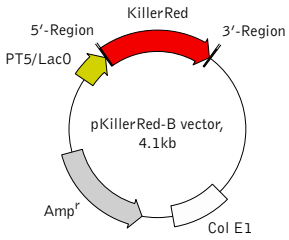
pKillerRed-B vector

The vector sequence has been compiled using the information from sequence databases, published literature, and other sources, together with partial sequences obtained by Evrogen. This vector has not been completely sequenced.



For vector sequence, please visit our Web site at http://www.evrogen.com/support/vector-info.shtml

Product	Cat.#	Size
pKillerRed-B vector	**FP963**	20 μg

The price does not include delivery. The price varies in different countries. Please contact your local distributor for exact prices and delivery information.

Vector type	bacterial expression vector
Reporter	KillerRed
Reporter codon usage	mammalian
Promoter for KillerRed	T5 promoter/lac operator
Host cells	prokaryotic
Selection	ampicillin
Replication	ColE1 ori
Use	Source of the KillerRed coding sequence; KillerRed expression in bacterial cells

5' Region **3' Region**

RBS ATG.AGA.GGA.TCG.GGA.TCC.ATG.G . . . . . TGA.AAG.CTT . . .

BamH I, KillerRed, Nco I*, STOP, Hind III

* — not unique site.

Location of features

T5 promoter/lac operator element: 7-87
T5 transcription start: 61
KillerRed coding sequence: 133-852
Lambda t0 transcriptional termination region: 874-968
rrnB T1 transcriptional termination region: 1730-1828
ColE1 origin of replication: 2304
beta-lactamase coding sequence: 3922-3062

Vector description

pKillerRed-B is a prokaryotic expression vector encoding red fluorescent protein KillerRed. Reporter codon usage is optimized for high expression in mammalian cells (humanized) [Haas et al. 1996].

The vector is primarily intended as a source of KillerRed coding sequence. Flanking restriction sites are convenient for KillerRed gene excision and its further insertion into other expression vectors of choice. Alternatively, KillerRed coding sequence can be amplified by PCR.

Note: The plasmid DNA was isolated from dam$^+$-methylated *E.coli*. Therefore some restriction sites are blocked by methylation. If you wish to digest the vector using such sites you will need to transform the vector into a dam$^-$ host and make fresh DNA.

The vector can be also used for KillerRed expression in prokaryotes under the control of T5 promoter/lac operator. The vector backbone contains ColE1 origin of replication and ampicillin resistance gene for propagation and selection in *E. coli*.

References

Haas et al. (1996) “Codon usage limitation in the expression of HIV-1 envelope glycoprotein.” Curr Biol, 6 (3): 315–324 / pmid: 8805248