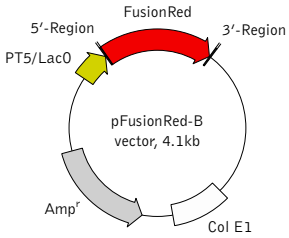
# pFusionRed-B vector

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/products/vectors.shtml

| Product | Cat.# | Size |
|---|---|---|
| pFusionRed-B vector | **FP438** | 20 μg |

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

**5' Region**

RBS ATG.AGA.GGA.TCG.GGA.TCC.TTA.CCG.GTC.GCC.ACC.ATG.G...
(Age I: TTA.CCG; BamH I: GGA.TCC; FusionRed: ATG.G...; Nco I*: ACC.ATG)

* — not unique site.

**3' Region**

...TGA.GCG.GCC.GCA.AGC.TT...
(STOP: TGA; Eag I: GCG.GCC; Hind III: AAGCTT; Not I: GCGGCCGC)

## Location of features

T5 promoter/lac operator element: 7-87
T5 transcription start: 61
FusionRed coding sequence: 147-846
Lambda t0 transcriptional termination region: 875-969
rrnB T1 transcriptional termination region: 1731-1829
ColE1 origin of replication: 2305
beta-lactamase coding sequence: 3923-3063

## Vector description

pFusionRed-B is a prokaryotic expression vector encoding red fluorescent protein FusionRed. 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 FusionRed coding sequence. Flanking restriction sites are convenient for excision of FusionRed sequence and its further insertion into other expression vectors of choice. Alternatively, FusionRed 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 FusionRed 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, J. et al. (1996) “Codon usage limitation in the expression of HIV-1 envelope glycoprotein.” Curr Biol, 6 (3): 315–324 / pmid: 8805248