

Data sheet

pOnebyOne®-Free-I Bicistronic Expression Vector

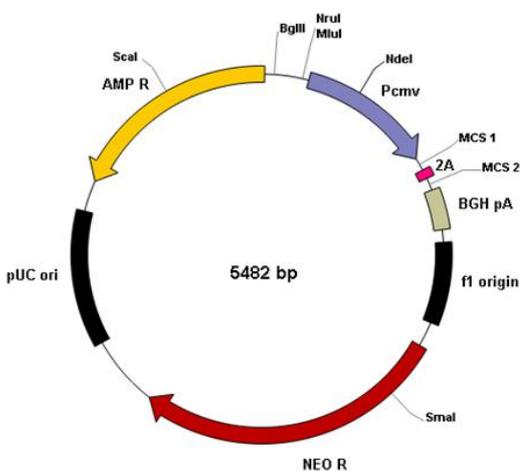
Cat. No: MEF020 (1µg)

Description

pOnebyOne®-Free-I vector is a mammalian expression vector that allows co-expression of two genes of interest driven by human cytomegalovirus early promoter. It is based in 2A sequence from **Thosea asigna Virus** (TaV) which is flanked by two multiple cloning sites. T2A sequence leads to the highest level of protein expression at the second gene position compared to other 2As.

The mechanism of 2A self-cleavage is a ribosome skipping process where the ribosome skips the formation of a glycyl-prolyl peptide bond at the C-terminus of 2A.

Stable mammalian cells could be selected by neomycin resistance.



Unique sites of multiple cloning sites,
MCS 1: 5' NheI-HindIII-KpnI-BamHI-EcoRI-EcoRV 3'
MCS 2: 5' AgeI-NotI-XhoI-PspOMI 3'

Kit Components

| Components | MEF020 |
|--------------------------------|--------|
| pOnebyOne®-Free-I (50 ng/ µL)* | 20 µL |

* Closed circular vector

Both genes of interest must be in frame with T2A and between them. Successful skipping results in translation of two proteins: 2A upstream protein is attached to the 2A sequence (GSGEGRGSLTCDVEENPG) at C-terminus while 2A downstream protein is attached to one Pro at the N-terminus.

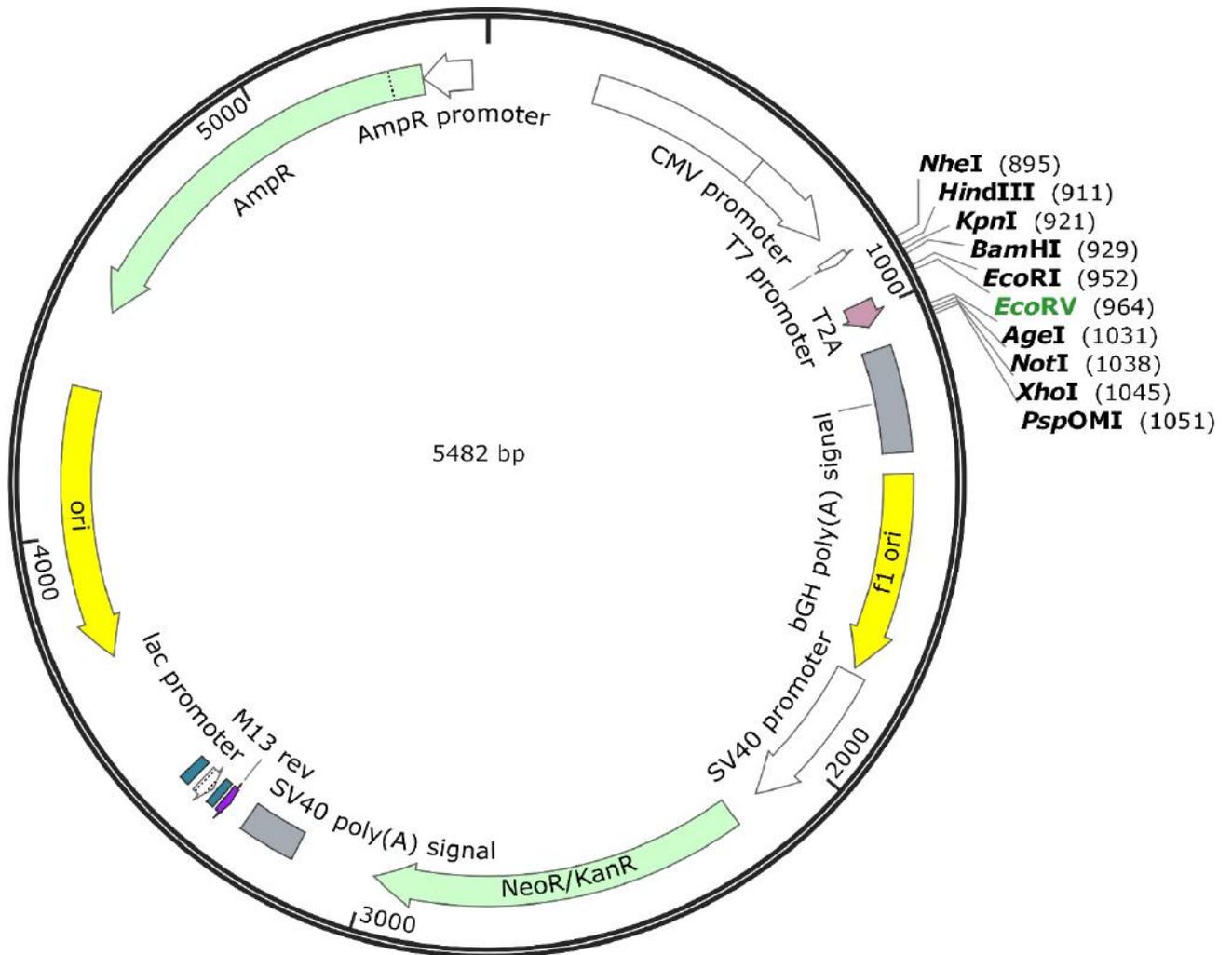
Features

| | |
|--|-----------|
| Cytomegalovirus promoter | 232-887 |
| Multiple cloning site 1 (MCS 1) | 895-967 |
| T2A from <i>Thosea asigna</i> virus | 968-1030 |
| Multiple cloning site 2 (MCS 2) | 1031-1065 |
| BGH polyadenylation sequence | 1082-1306 |
| f1 origin | 1362-1780 |
| Neomycin resistance cassette | 1785-3288 |
| <i>Neomycin resistance gene (ORF)</i> | 2190-2981 |
| pUC origin | 3671-4341 |
| Ampicillin resistance cassette (<i>complementary strand</i>) | 4486-5480 |
| <i>Ampicillin resistance gene (ORF)</i> | 4489-5346 |

Storage Buffer: 10mM Tris-HCl, 1mM EDTA, pH8.0

Stability: 1 year when stored at -20°C or lower in a non-frost-free freezer.

Map Vector:



PRODUCT USE LIMITATION

This product is developed, designed and sold exclusively for research purposes and in vitro use only. The product was not tested for use in diagnostics or for drug development, nor is it suitable for administration to humans or animals. Please refer to www.canvaxbiotech.com for Material Safety Data Sheet of the product.