

## pEF1 $\alpha$ -E2-Crimson Vector

**Catalog No.**  
631981

**Amount**  
10  $\mu$ g

**Lot Number**  
Specified on product label.

### Description

pEF1 $\alpha$ -E2-Crimson is a mammalian expression vector that constitutively expresses the far-red fluorescent protein E2-Crimson, even after stable integration of the vector into the host cell genome. Stable, constitutive expression of E2-Crimson is driven by the human elongation factor 1 alpha (EF1 $\alpha$ ) promoter, which allows the protein to be expressed without the transgene silencing associated with CMV promoters. The vector, which lacks an MCS, is designed to be used for cell labeling or as a marker of transfection efficiency.

### Package Contents

- 1 tube of pEF1 $\alpha$ -E2-Crimson Vector (20  $\mu$ l/tube)

### Storage Conditions

- Store plasmid at  $-20^{\circ}\text{C}$ .
- Spin briefly to recover contents.
- Avoid repeated freeze/thaw cycles.

### Shelf Life

- 1 year from date of receipt under proper storage conditions.

### Storage Buffer

- 10 mM Tris-HCl (pH 8.0), 1 mM EDTA (pH 8.0)

### Concentration

- 500 ng/ $\mu$ l

### Shipping Conditions

- Dry ice ( $-70^{\circ}\text{C}$ )

### Propagation in *E. coli*

- Suitable host strains: DH5 $\alpha$ , HB101 and other general purpose strains. Single-stranded DNA production requires a host containing an F plasmid, such as the JM109 or XL1-Blue strains.
- Selectable marker: plasmid confers resistance to kanamycin (50  $\mu$ g/ml) in *E. coli* hosts.
- *E. coli* replication origin: pUC
- Copy number: high

### Excitation and Emission Maxima of E2-Crimson

- Excitation: 611 nm
- Emission: 646 nm

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#### Takara Bio USA, Inc.

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## Quality Control Data

### Plasmid Identity & Purity

- Digestion with the indicated restriction enzymes produced fragments of the indicated sizes on a 0.8% agarose/EtBr gel:

<b>Enzyme(s)</b>	<b>Fragment(s)</b>
NotI	5.4 kb
AgeI	1.1 & 4.3 kb

- Vector identity was confirmed by sequencing.
- $A_{260}/A_{280}$ : 1.8–2.0

It is certified that this product meets the above specifications, as reviewed and approved by the Quality Department.

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### STATEMENT 24

DsRed2, DsRedExpress, DsRedExpress2, E2-Crimson, HcRed and pTimer are covered by one or more of the following U.S. Patent Nos. 7,166,444; 7,150,979; 7,157,565; 7,183,399; 7,858,844; 8,093,450; 8,461,769 and non-

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