# Certificate of Analysis



## pEF1α-IRES Vector

Catalog No. Amount Lot Number

631970 10 μg Specified on product label.

## **Description**

pEF1 $\alpha$ -IRES is a bicistronic mammalian expression vector that allows simultaneous, constitutive expression of two genes of interest from the same mRNA transcript, even after stable integration of the vector into the host cell genome. Stable, constitutive expression of the bicistronic transcript is driven by the human elongation factor 1 alpha (EF1 $\alpha$ ) promoter, allowing the investigation of a variety of cellular processes (such as differentiation in primary or stem cells) without the transgene silencing associated with CMV promoters.

### **Package Contents**

• 20 μl pEF1α-IRES Vector

### **Storage Conditions**

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

## **Expiration Date**

• Specified on product label.

## **Storage Buffer**

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

#### Concentration

500 ng/μl

## **Shipping Conditions**

• Dry ice

#### **Product Documents**

Documents for our products are available for download at <u>takarabio.com/manuals</u> The following documents apply to this product:

- pEF1alpha-IRES Vector Information
- pEF1alpha-IRES Vector Sequence in GenBank Format

### Propagation in E. coli

- Suitable host strains: DH5α, 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 ampicillin (100 μg/ml) in E. coli hosts.
- E. coli replication origin: pUC
- Copy number: high

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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:

| Vector     | Enzymes | Fragments    |
|------------|---------|--------------|
| pEF1α-IRES | NheI    | 6.7 kb       |
|            | Acc65I  | 1.1 & 5.6 kb |

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

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

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