pEF1α-IRES-DsRed-Express2 Vector

Catalog No. 631980  
Amount 10 μg  
Lot Number Specified on product label.

Description
pEF1α-IRES-DsRed-Express2 is a bicistronic mammalian expression vector that allows the simultaneous, constitutive expression of a protein of interest and the red fluorescent protein DsRed-Express2. Expression of the bicistronic transcript is driven by the human elongation factor 1 alpha (EF1α) promoter, which continues to be constitutively active even after stable integration of the vector into the host cell genome. Stable expression of the bicistronic transcript allows the monitoring of a variety of cellular processes (such as differentiation in primary or stem cells) without the transgene silencing associated with CMV promoters. In addition, the vector allows efficient flow cytometric detection of stably or transiently transfected mammalian cells expressing DsRed-Express2 and a protein of interest, without time-consuming drug and clonal selection.

Package Contents
- 1 tube of pEF1α-IRES-DsRed-Express2 Vector (20 μl/tube)

Storage Conditions
- Store plasmid at −20°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/μl

Shipping Conditions
- Dry ice (−70°C)

Propagation in E. coli
- Suitable host strains: DH5α and other general purpose strains. Single-stranded DNA production requires a host containing an F plasmid such as JM101 or XL1-Blue.
- Selectable marker: plasmid confers resistance to kanamycin (50 μg/ml) in E. coli hosts.
- E. coli replication origin: pUC
- Copy number: high
Excitation and Emission Maxima of DsRed-Express2

- Excitation: 554 nm
- Emission: 591 nm

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:

<table>
<thead>
<tr>
<th>Enzyme(s)</th>
<th>Fragment(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>BamHI</td>
<td>6.0 kb</td>
</tr>
<tr>
<td>AgeI/NheI</td>
<td>1.1 &amp; 4.9 kb</td>
</tr>
</tbody>
</table>

- 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.
Notice to Purchaser

pEF1alpha-IRES-DsRed-Express2 Vector

CATALOG NO.
631980

NOTICE TO PURCHASER:

Our products are to be used for Research Use Only. They may not be used for any other purpose, including, but not limited to, use in humans, therapeutic or diagnostic use, or commercial use of any kind. Our products may not be transferred to third parties, resold, modified for resale, or used to manufacture commercial products or to provide a service to third parties without our prior written approval.

Your use of this product is also subject to compliance with the licensing requirements, listed below if applicable, and described on the product’s web page at http://www.takarabio.com. It is your responsibility to review, understand and adhere to any restrictions imposed by these statements.

STATEMENT 72

Living Colors Fluorescent Protein Products:

Not-For-Profit Entities: Orders may be placed in the normal manner by contacting your local representative or Takara Bio USA, Inc. Customer Service. Any and all uses of this product will be subject to the terms and conditions of the Non-Commercial Use License Agreement (the “Non-Commercial License”), a copy of which can be found below. As a condition of sale of this product to you, and prior to using this product, you must agree to the terms and conditions of the Non-Commercial License. Under the Non-Commercial License, Takara Bio USA, Inc. grants Not-For-Profit Entities a non-exclusive, non-transferable, non-sublicensable and limited license to use this product for internal, non-commercial scientific research use only. Such license specifically excludes the right to sell or otherwise transfer this product, its components or derivatives thereof to third parties. No modifications to the product may be made without express written permission from Takara Bio USA, Inc. Any other use of this product requires a different license from Takara Bio USA, Inc. For license information, please contact a licensing representative by phone at 650.919.7320 or by e-mail at licensing@takarabio.com.

For-Profit Entities wishing to use this product are required to obtain a license from Takara Bio USA, Inc. For license information, please contact a licensing representative by phone at 650.919.7320 or by e-mail at licensing@takarabio.com.

Not-For-Profit Non-Commercial Use License:

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-
Notice to Purchaser

U.S. international equivalents in some countries.

TRADEMARKS:

© 2010 Takara Bio Inc. All Rights Reserved.
All trademarks are the property of Takara Bio Inc. or its affiliate(s) in the U.S. and/or other countries or their respective owners. Certain trademarks may not be registered in all jurisdictions.