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**PRODUCT: pTRE-Cycle2 Vector**

**CATALOG NO.** 631116  
**AMOUNT** 20 µg

**LOT NUMBER**  
Specified on product label.

**STORAGE BUFFER**  
10 mM Tris-HCl (pH 8.0)  
1 mM EDTA (pH 8.0)

**STORAGE CONDITIONS**

- Store all components at -20°C.
- Spin tubes briefly to recover contents.
- Avoid repeated freeze/thaw cycles.

**SHELF LIFE**  
1 year from date of receipt under proper storage conditions.

**SHIPPING CONDITIONS**  
Dry ice (-70°C)

**PRODUCT USER MANUALS**  
User manuals for Clontech® products are available for download at [www.clontech.com/manuals](http://www.clontech.com/manuals).

- Tet-On Advanced Inducible Gene Expression Systems User Manual (PT3898-1)
- Tet-Off Advanced Inducible Gene Expression Systems User Manual (PT3945-1)

**DESCRIPTION**

pTRE-Cycle2 is a bidirectional, Tet-inducible expression vector that allows you to reversibly regulate (i.e., cycle) the amount of a protein of interest in mammalian cells while coexpressing the red fluorescent protein mCherry. Expression of both proteins is tightly regulated by the bidirectional, TRE-based promoter,  $P_{Tight-Bi}$ . Expression of the gene of interest is controlled by an additional mechanism, since the resulting protein is fused to an N-terminal ProteoTuner™ destabilization domain (DD), which causes rapid proteasomal degradation of any protein to which it is fused. The degradation process can be reversed repeatedly by adding the stabilizing ligand Shield1 and then removing it from the culture medium. mCherry is coexpressed with the tagged protein, but does not contain a DD-tag, and thus is subject only to Tet-based regulation. The vector is intended for use with any Tet-On® or Tet-Off® Advanced Expression System. To select stable cell lines, the vector must be cotransfected with one of the provided linear selection markers.

**PACKAGE CONTENTS**

- 20 µg pTRE-Cycle2 Vector (500 ng/µl)
- 20 µg pTRE-Tight-Luc Vector (500 ng/µl)
- 40 µl Linear Hygromycin Marker (50 ng/µl)
- 40 µl Linear Puromycin Marker (50 ng/µl)

**OTHER**

- pTRE-Cycle2 Vector Information (PT5046-5)

**FOR RESEARCH USE ONLY**

**QUALITY CONTROL DATA**

See back of page.



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(PA013557)

**QUALITY CONTROL DATA****1. Plasmid Identity**

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

<b>Vector</b>	<b>Enzyme(s)</b>	<b>Fragment(s)</b>
pTRE-Cycle2 Vector	BamHI XhoI/BamHI	3.9 kb 3.2 & 0.7 kb
pTRE-Tight-Luc Vector	BamHI/NheI XbaI	2.6 & 1.6 kb 4.2 kb
Linear Hygromycin Marker	HindIII/XbaI	1.05, 0.6 & 0.45
Linear Puromycin Marker	HindIII/XbaI	0.75, 0.6 & 0.45

- $A_{260}/A_{280}$ : 1.8 – 2.0
- Vector identities were also confirmed by sequencing

**2. Functional Testing of Linear Markers**

As a functional test, HEK 293 cells were transfected with 200 ng of Linear Hygromycin or Puromycin Marker. After 5 hr at 37°C, the transfection solution was removed and cells were given fresh media. 48 hr later, cells were plated in two 10 cm plates. 48 hr after plating, media containing hygromycin or puromycin was added to the plates. After 2–3 weeks, totals of >20 clones were identified for each marker.

## pTRE-Cycle2 Vector

### CATALOG NO.

631116

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### STATEMENT 44

The DsRed-Monomer and the Fruit Fluorescent Proteins are covered by one or more of the following U.S. Patents: 7,005,511; 7,157,566; 7,393,923 and 7,250,298.

### STATEMENT 57

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# Notice to Purchaser



This product is covered by U.S. Patent No. 8,173,792.

## STATEMENT 72

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