Certificate of Analysis

pTRE3G-mCherry Vector Set

Catalog No.	Amount	Lot Number
631175 (Not sold separately) Sold as part of 631171, 631165, and 631347	Each	Specified on product label.

Description

The pTRE3G-mCherry Vector Set provides an inducible mammalian expression vector that is tightly regulated, and highly responsive to Tet-On®, Tet-Off®, and Tet-Express™ transactivators (1). The simultaneous expression of a gene of interest and a red fluorescent protein marker is driven from the inducible P_{TRE3G} promoter, which produces 5–20-fold less background expression than the P_{Tight} promoter. The vector set also includes: a control vector that expresses luciferase in response to transactivation; and two linear selection markers for hygromycin and puromycin resistance.

Package Contents

- 20 µl pTRE3G-mCherry Vector (500 ng/µl)
- 20 µl pTRE3G-Luc Control Vector (500 ng/µl)
- 40 µl Linear Hygromycin Marker (50 ng/µl)
- 40 µl Linear Puromycin Marker (50 ng/µl)

Storage Conditions

- Store plasmids 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

- pTRE3G-mCherry Vector and pTRE3G-Luc Control Vector: 500 ng/µl
- Linear Markers: 50 ng/µl

Shipping Conditions

- Dry ice (–70°C)

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(050918)

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Product Documents

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

- Tet-Express Inducible Expression Systems User Manual (PT5167-1)
- Tet-On 3G Expression Systems User Manual (PT5148-1)
- pTRE3G-mCherry Vector Information
- pTRE3G-Luc Control Vector Information

Propagation in *E. coli*

- Suitable host strain: Stellar™ Competent Cells
- Selectable marker: plasmid confers resistance to ampicillin (100 µg/ml) in *E. coli* hosts.
- *E. coli* replication origin: pUC

Excitation and Emission Maxima of mCherry

- Excitation: 587 nm
- Emission: 610 nm

References

1. Gossen, M. & Bujard, H. (1992) *Proc. Natl. Acad. Sci. USA* **89**(12):5547–5551.

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	Enzyme(s)	Size(s)
pTRE3G-mCherry	XhoI	4.7 kb
	PstI	1.0 & 3.7 kb
pTRE3G-Luc	XhoI	5.1 kb
	EcoRI & BamHI	2.1 & 3.0 kb

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

Linear Selection Marker Identity

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

Marker	Enzyme(s)	Size(s)
Linear Hygromycin Marker	HindIII & XbaI	0.5, 0.6 & 1.1 kb
Linear Puromycin Marker	HindIII & XbaI	0.45, 0.6, & 0.75 kb

Functional Testing of Linear Markers

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

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

Notice to Purchaser

pTRE3G-mCherry Vector Set

CATALOG NO.

631175

NOTICE TO PURCHASER:

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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 72

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STATEMENT 42

Use of the Tetracycline controllable expression systems (the "Tet Technology") is covered by a series of patents including U.S. Patent # 7541446, # 8383364, # 9181556 , European patents EP # 1200607, # 1954811, #2352833 and corresponding patent claims outside these regions which are proprietary to TET Systems GmbH & Co. KG.

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5/9/2018

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TRADEMARKS:

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