

# INDUCIBLE PROTEIN EXPRESSION

## TIGER TET-ON SYSTEM



**NEW**



## A powerful new Tet-on system

- Designed for the controlled expression of cytotoxic proteins
- Minimal background and strong induced expression
- Custom cloning service available

The TiGer (Tetracycline-induced Gene expression or repression) system comprises two RepTor™ cell lines and two series of pTiGer plasmids (cloning and control vectors).

To save you time and effort, the RepTor™ cell lines stably and constitutively express the tetracycline repressor protein. They are readily transfectable with a gene of interest cloned into a pTiGer-mcs vector. InvivoGen also offers custom cloning service to help you meet your specific research needs.

### Easy pairing of RepTor™ cell lines & pTiGer vectors

**HEK-RepTor™ cells**

**A549-RepTor™ cells**

**pTiGer-mcs cloning vectors**

**pTiGer-reporter control vectors**

**Custom cloning**

[INVIVOGEN.COM/TET-ON-INDUCIBLE-PROTEIN-EXPRESSION](http://INVIVOGEN.COM/TET-ON-INDUCIBLE-PROTEIN-EXPRESSION)

# TIGER TET-ON SYSTEM

The TiGer (Tetracycline-induced Gene expression or repression) system includes two RepTor™ cell lines and two series of pTiGer plasmids (cloning and control vectors), allowing on-demand expression of a gene of interest (GOI) upon incubation with doxycycline (Dox), a tetracycline analog. It has been engineered to offer the advantage of working with cytotoxic genes (e.g. proteases, pore-forming proteins, gain-of-function variants).

## Key features:

- Minimal GOI background expression
- Strong GOI expression with low dose of doxycycline

## Applications:

- Controlled expression of cytotoxic genes
- Fine-tuned expression of a GOI
- Screening of toxic protein inhibitors

## RepTor™ cells - TetR-expressing cell lines

- HEK-RepTor™ Cells
- A549-RepTor™ Cells

RepTor™ cell lines are derived from HEK293 (human embryonic kidney) or A549 (human lung carcinoma) cells, two widely used cellular models. They stably express an optimized tetracycline repressor (TetR) construct. They are readily transfectable with a pTiGer plasmid, carrying a GOI (see below). These cells guarantee maximal repression of the GOI, minimal leakage without Dox, and strong GOI expression with Dox.

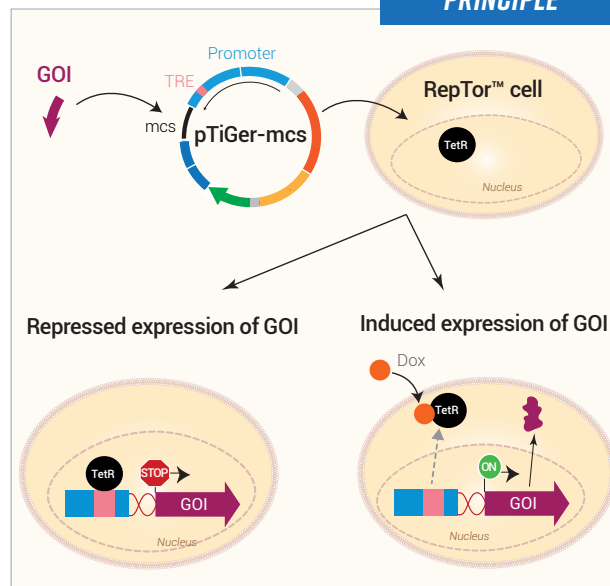
## pTiGer plasmids - Cloning & reporter vectors

- pTiGer2/3/4-mcs (cloning vectors)
- pTiGer2/3/4-SEAP/Lucia/eGFP (control vectors)

Our pTiGer vectors feature a Tet-inducible expression cassette for a GOI or a reporter gene (SEAP, Lucia, or eGFP). The gene is placed under the control of the strong composite CMV-EF1 promoter modified to integrate a Tet response element (TRE), and of an efficient transcription terminator. Each plasmid is available with a choice of selectable markers.

- pTiGer-mcs plasmids allow the convenient cloning of a GOI.
- pTiGer-reporter plasmids allow validation of the TiGer tet-on system, as well as selection of fetal bovine serum (FBS) lots for culturing RepTor™ cell lines. *Note: Some FBS batches are contaminated with residual amounts of tetracyclines or derivatives.*

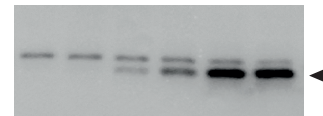
## PRINCIPLE



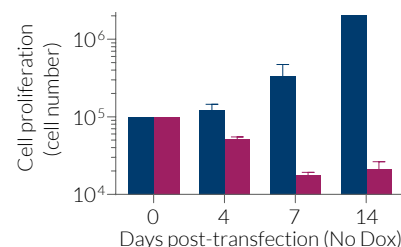
## Doxycycline-mediated induction of gasdermin D-Nter in HEK-RepTor™ cells

Time (hours) post Dox (1 ng/ml)

0 1 2 3 4 5



## Cell proliferation without leaking expression of cytotoxic gasdermin D-Nter in HEK-RepTor™ cells



PRODUCT	CAT. CODE
HEK-RepTor™ Cells	hk-rtor
A549-RepTor™ Cells	a549-rtor
pTiGer"x"-mcs	ptg"x"-mcs
pTiGer"x"-SEAP/Lucia/eGFP	ptg"x"-sp; ptg"x"-lc; ptg"x"-gfp

"x" refers to selection: 2 = Zeocin®, 3 = Hygromycin, 4 = Puromycin

**Save Time & Effort**  
 Our experts help you expedite the cloning of your GOI into the pTiGer plasmid of your choice. Ask for more information at : [info@invivogen.com](mailto:info@invivogen.com)