Tet Product Overview

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For the response I need....

I want to inducibly express ...

A: a gene

If you simply want to switch on or off your gene of interest, these systems and vectors are the answer.

Tet-On® 3G

The Tet-On 3G Systems represent the latest generation of Tet technology. With improvements in both the transactivator and the response element, these new systems allow for high fold induction in a very tight system

	Cat#	Mechanism	Generation	Tightness	combine with	
Tet-On® 3G Inducible Expression System	631168	On	III	*****	complete	
Tet-On® 3G Inducible Expression System (EF-1α Version)	631167	On	III	*****	complete	

Tet-On® and Tet-Off® Advanced

The Tet-Off Advanced is the best option if you are looking for a system which is turned off by addition of doxycycline.

Tet-Off® Advanced Inducible Gene Expression System	630934	Off	II	****	complete	
Tet-On® Advanced Inducible Gene Expression System	630930	On	II	****	complete	

Tet-Express™

Tet-Express is a revolutionary sytem in which the Tet-Express protein can be added directly to the cell to induce expression from a response plasmid (included). No doxycline is necessary.

Tet-Express™ Inducible Expression System	631169	On	III	*****	complete	

Viral Systems

For hard-to-transfect cells such as stem cells or primary cells, viral delivery offers very high transduction levels. Clontech offers a complete workflow for viral experimets, including packaging, concentration, purification and titration.

Lenti-X™ Tet-On® 3G Inducible Expression System	631187	On	III	*****	complete	NEW
Lenti-X™ Tet-Express™ Inducible Expression System	631189	On	III	*****	complete	NEW
Lenti-X™ Tet-On® Advanced Inducible Expression System	632162	On	II	****	complete	
Lenti-X™ Tet-Off® Advanced Inducible Expression System	632163	Off	II	****	complete	
Retro-X™ Tet-On® 3G Inducible Expression System	631188	On	III	*****	complete	NEW
Retro-X™ Tet-Express™ Inducible Expression System	631190	On	III	*****	complete	NEW
Retro-X™ Tet-On® Advanced Inducible Expression System	632104	On	II	****	complete	
Retro-X™ Tet-Off® Advanced Inducible Expression System	632105	Off	II	****	complete	
Adeno-X™ Adenoviral System 3 (Tet-On® 3G Inducible)	631180	On	III	*****	complete	

Separate Response Vectors

If you already have a transactivator, these separate vectors can be used for inducible expression. For the best performance, you might

pTRE-Tight Vector	631059		II	****	s. Backpage
pTRE2 Vector	631008		I	***	s. Backpage
pTRE2hyg Vector	631014		I	***	s. Backpage
pTRE2pur Vector	631013		I	***	s. Backpage
pRetroX-Tight-Hyg	631034	Retroviral	II	****	

B: 2 genes

Having two genes expressed simultaneously can improve the informative value of your experiment. You can either study 2 factors at the same time or use the 2nd one as a marker for induction.

Tet-On® 3G Inducible Expression System (Bicistronic)	631166	On, IRES	III	*****	complete
Tet-Express™ Inducible Expression System (Bicistronic)	631170	On, IRES	III	*****	complete
pTRE-Dual1 Vector	631114	IRES	II	****	s. Backpage
pTRE-Tight-BI Vector	631068	Bidirectional	II	****	s. Backpage

C: 2 independent genes

Sometimes, one degree of control is not enough. By combining the Tet and the Proteotuner technology, you can induce 2 genes and at the same time control one of them at the protein level.

pTRE-Cycle1 Vector	631115	ProteoTuner	II	****	s. Backpage
pTRE-Cycle2 Vector (mCherry)	631116	ProteoTuner	II	****	s. Backpage
pTRE-Cycle3 Vector (ZsGreen1)	631117	ProteoTuner	II	****	s. Backpage

For the response I need....

I want to inducibly express ...

		Cat#	Mechanism	Generation	Tightness	combine with
D: a gene + fluorescent P.	**Complete Systems**					
Tracking the induction of the gene of interest is not always easy. Western blot is the method of choice but a good antibody is not always available. Having a fluorescent protein co-induced with the gene of interest not only circumvents this problem, but also provides the means to quickly and non-invasivly check the state of induction and follow it live. The IRES Fluorescent Vector Sets even allow you to verify transactivator expression and induction of the gene of interest, using two different colors.	Tet-On® 3G Inducible Expression System (with mCherry)	631165	On, IRES	III	*****	complete
	Tet-On® 3G Inducible Expression System (with ZsGreen1)	631164	On, IRES	III	*****	complete
	Tet-Express™ Inducible Expression System (mCherry)	631171	On	III	*****	complete
	Tet-Express™ Inducible Expression System (ZsGreen1)	631172	On	III	*****	complete
	Tet-On® Advanced IRES Fluorescent Vector Set	631112	On, 2x IRES	II	****	complete
	Tet-Off® Advanced IRES Fluorescent Vector Set	631113	Off, 2x IRES	II	****	complete
	Separate Response Vectors					
	pTRE-Tight-BI-AcGFP1 Vector	631066	Bidirectional	II	****	s. Backpage
	pTRE-Tight-BI-DsRed-Express Vector	631065	Bidirectional	II	****	s. Backpage
	pTRE-Tight-BI-ZsGreen1 Vector	631067	Bidirectional	II	****	s. Backpage
E: a gene + tag						
Tags fused to the protein of interest can facilitate detection and enrichment of the protein of interest.	pTRE2hyg2-HA Vector	631051		I	***	s. Backpage
	pTRE2pur-HA Vector	631054		I	***	s. Backpage
	pTRE2hyg2-Myc Vector	631052		I	***	s. Backpage
	pTRE2pur-Myc Vector	631055		I	***	s. Backpage
	pTRE2hyg2-6xHN Vector	631053		I	***	s. Backpage
	pTRE2pur-6xHN Vector	631056		I	***	s. Backpage
F: cell cycle markers						
This vector, combined with an induction system, will inducibly mark the cells in blue or red depending on which stage in the cell cylce they are in.	pTRE-CellCycle Vector	631466		II	****	s. Backpage
G: marker						
Express a fluorescent marker to test the inducibility of your Tet system.	pTRE-Tight-AcGFP1	631063		II	****	s. Backpage
	pTRE-Tight-DsRed2 Vector	631061		II	****	s. Backpage
	pTRE-Tight-ZsGreen1	631062		II	****	s. Backpage
H: shRNA	**Plasmid-based Delivery**					
Knockdown experiments are much more versatile when an inducible system is used. You can choose the exact moment of interference and can study the effect of the knockdown more easily.	Knockout Single Vector Inducible RNAi System	630933			*****	complete
	Retroviral Systems					
	Knockout Tet RNAi System H	630925			*****	complete
	Knockout Tet RNAi System P	630926			*****	complete
I: miRNA + fluorescent P.						
With Mir-X, the miRNA you are interested in is directly embedded in the gene of a fluorescent protein. That way you can inducibly express your miRNA and follow the induction by fluorescence microscopy.	Mir-X™ Inducible miRNA System (Green)	631120		II	****	complete
	Mir-X™ Inducible miRNA System (Red)	631118		II	****	complete
	pmRi-mCherry Vector	631119		II	****	s. Backpage
	pmRi-ZsGreen1 Vector	631121		II	****	s. Backpage

For control I need

	Cat#	Mechanism	Generation	Induction	
J: Tet-On® 3G					
Even though the Tet-On 3G systems are complete systems, the included plasmids can be used in conjuction with many of the separate response vectors on the previous pages.					
Tet-On® 3G Inducible Expression System	631168	On	III	*****	
Tet-On® 3G Inducible Expression System (EF-1 alpha Version)	631167	On	III	*****	
K: Separate Transactivator Vectors					
These can be combined with most response vectors on the left to create a complete Tet System.					
pTet-Off® Advanced Vector	631070	Off	II	****	
pTet-Off® Vector	631017	Off	II	****	
pTet-On® Advanced Vector	631069	On	II	****	
pTet-On® Vector	631018	On	II	****	
L: Tet-Express™					
Tet-Express is availabe as a separate reagent and can be used to induce expression of many response vectors (see page 2-3).					
Tet-Express™	631177	On	III	*****	
Tet-Express™	631178	On	III	*****	
M: Cell Lines					
With the Tet-cell lines, the first step of the creation of a Tet-inducible system has already been done for you. All that is left to do is a single transfection and selection with a response vector.					
HEK 293 Tet-On® 3G Cell Line	631182	On	III	*****	NEW
HeLa Tet-On® 3G Cell Line	631183	On	III	*****	NEW
Jurkat Tet-On® 3G Cell Line	631181	On	III	*****	NEW
MCF7 Tet-On® Advanced Cell Line	631153	On	II	****	
HepG2 Tet-On® Advanced Cell Line	631150	On	II	****	
HeLa Tet-On® Advanced Cell Line	631155	On	II	****	
HEK 293 Tet-On® Advanced Cell Line	631149	On	II	****	
HEK 293 Tet-Off® Advanced Cell Line	631152	Off	II	****	
HeLa Tet-Off® Advanced Cell Line	631156	Off	II	****	
HepG2 Tet-Off® Advanced Cell Line	631151	Off	II	****	
MCF7 Tet-Off® Advanced Cell Line	631154	Off	II	****	
U2-OS Tet-On® Cell Line	631143	On	I	***	
T-47D Tet-On® Cell Line	631144	On	I	***	
PC12 Tet-On® Cell Line	631137	On	I	***	
Jurkat Tet-On® Cell Line	631140	On	I	***	
CHO-K1 Tet-On® Cell Line	631142	On	I	***	
CHO AA8 Tet-Off® Cell Line	631133	Off	I	***	
HT-1080 Tet-Off® Cell Line	631141	Off	I	***	
Jurkat Tet-Off® Cell Line	631135	Off	I	***	
MEF/3T3 Tet-Off® Cell Line	631139	Off	I	***	
PC12 Tet-Off® Cell Line	631134	Off	I	***	
Saos-2 Tet-Off® Cell Line	631136	Off	I	***	
T-47D Tet-Off® Cell Line	631145	Off	I	***	

Consumables

	Cat#
Tet-approved FBS	
This high-quality FBS has been funtionally tested to ensure optimum induction with all Tet Gene Expression Systems.	
Tet System Approved FBS, USDA-Approved [50 ml]	631107
Tet System Approved FBS, USDA-Approved [500 ml]	631106
Tet System Approved FBS, US-Sourced [50 ml]	631105
Tet System Approved FBS, US-Sourced [500 ml]	631101
Tet System Approved FBS, ES Cell Qualified [50 ml]	631157
Tet System Approved FBS, ES Cell Qualified [500 ml]	631158
Doxycycline	
Doxycycline, a derivative of tetracycline, is the recommended inducer for all Tet Inducible Expression Systems, with the exception of Tet-Express where no doxycycline is needed.	
Doxycycline [5 g]	631311
Linear Selection Markers	
These pre-linearized markers are ideal for co-transfection with vectors that don't contain a selection marker.	
Linear Puromycin Marker [2 µg]	631626
Linear Hygromycin Marker [2 µg]	631625
Selection Antibiotics	
Puromycin [25 mg]	631305
Puromycin [100 mg]	631306
Hygromycin [20 ml]	631309
G418 Sulfate [1 g]	631307
G418 [5 g]	631308
Tet Antibody	
This antibody is a highly sensitive antibody able to detect Tet-On 3G, Tet-On/Off Advanced, TetR and Tet-Off proteins.	
TetR Monoclonal Antibody (Clone 9G9) [40 µg]	631131
TetR Monoclonal Antibody (Clone 9G9) [200 µg]	631132