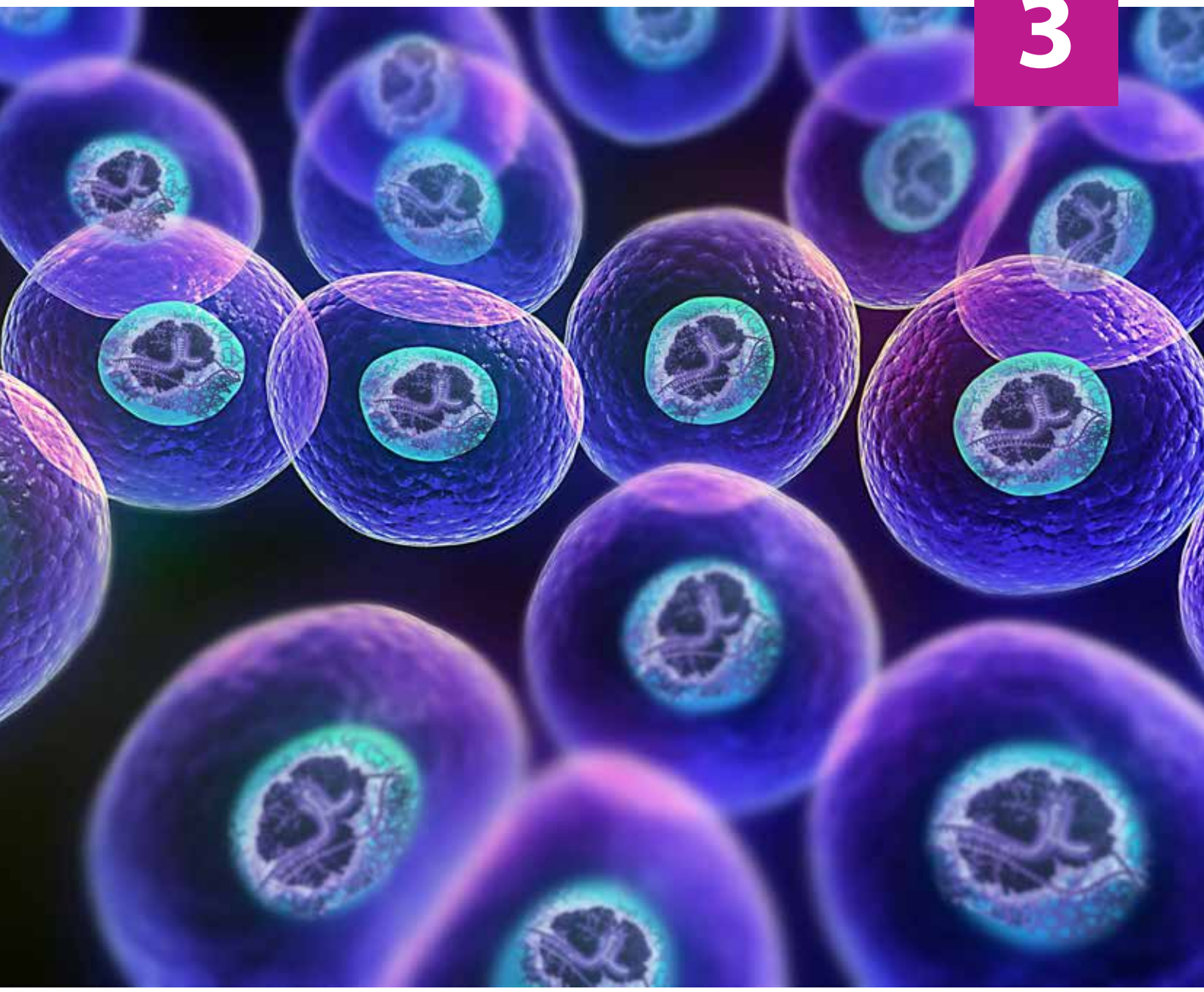
Applied Biological Materials, Inc.

KRISHGEN BioSystems

OUR REAGENTS, YOUR RESEARCH

World's Largest Collection of Cell Lines

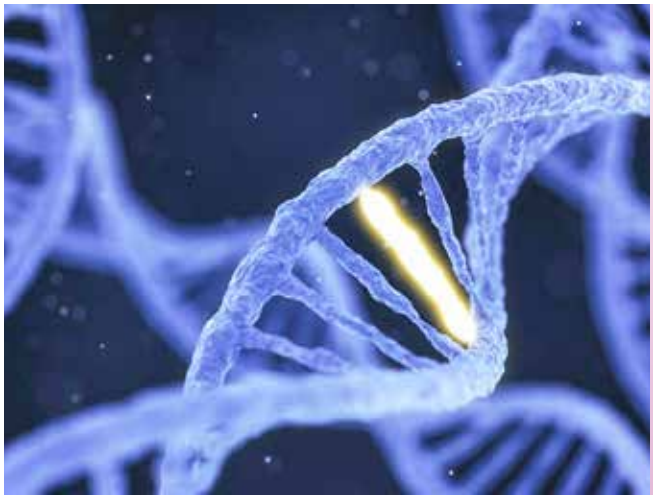
CRISPR - 3'UTR Cell Line Catalog



CRISPR Cell Lines

Focus your study on the knockout effect with **abm**'s ready-to-use, validated CRISPR knockout cell lines.

Cas9-Expressing Stable Cell Lines

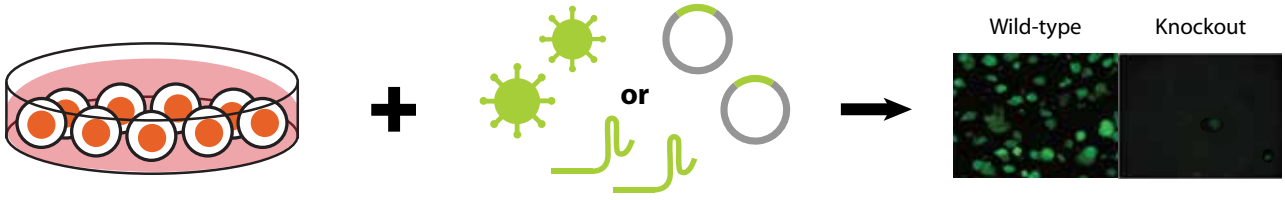


Features

- Available in popular cell line research models
- Cas9-expression pre-validated by western blot analysis
- Simplified workflow—just add sgRNA

Simply add your sgRNA and begin editing!

CRISPR is the most versatile technology for genome editing. As such, **abm** offers a wide variety of Cas9-expressing human, mouse, and rat stable cell lines. These cell lines only require the introduction of sgRNA vector or virus (from our ready-to-use human, mouse or rat Genome-Wide sgRNA Libraries), or transfection of *in vitro* transcribed sgRNA.



1. Cells expressing Cas9

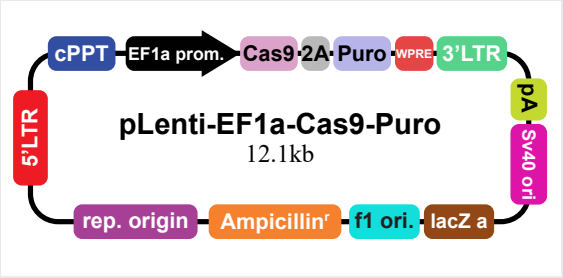
Begin with cells containing an integrated Cas9 gene

2. Deliver sgRNA

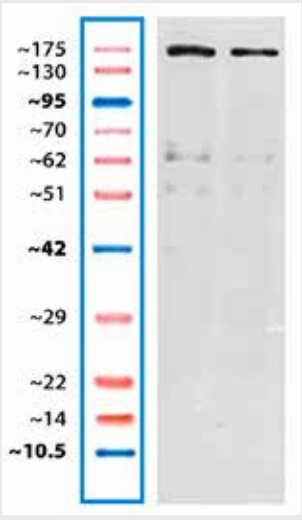
Add sgRNA via viral transduction, or transfection of a vector, or *in vitro* transcribed sgRNA

3. Screen for KO

Screen for Cas9 mediated target gene(s) knockout



Top: Map of Cas9 Lentivector used to generate of **abm**'s Cas9 cell lines.

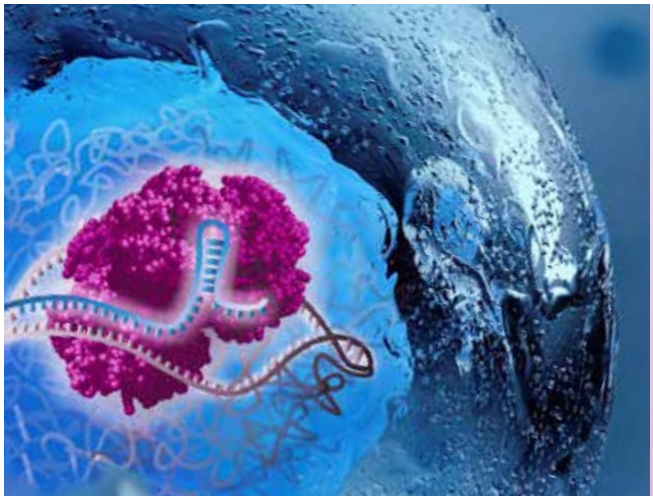


Left: Western blot of Cas9-Expressing A375 Cell Line using Anti-Cas9 Antibody (Cat. No. Y300079). Band appears at 160 kDa.

Cas9-Expressing Stable Cell Lines | Available Cell Lines

Cell Type	Species	Unit	Cat. No.
293 Cell Line	Human	1,000,000 cells/ml	T3252
293T Cell Line	Human	1,000,000 cells/ml	T3251
A375 Cell Line	Human	1,000,000 cells/ml	T3262
A549 Cell Line	Human	1,000,000 cells/ml	T3253
Doxycycline Inducible HeLa (cTT20) Cell Line	Human	1,000,000 cells/ml	T6175
HCT116 Cell Line	Human	1,000,000 cells/ml	T3263
HeLa Cell Line	Human	1,000,000 cells/ml	T3254
HepG2 Cell Line	Human	1,000,000 cells/ml	T3256
HK-2 Cell line	Human	1,000,000 cells/ml	T3271
HL-60 Cell Line	Human	1,000,000 cells/ml	T3264
HT1080 Cell Line	Human	1,000,000 cells/ml	T3260
Astrocyte Cell Line, Fetal	Human	1,000,000 cells/ml	T3452
Cardiomyocyte Cell Line	Human	1,000,000 cells/ml	T3454
Microglia Cell Line	Human	1,000,000 cells/ml	T3451
Skeletal Muscle Cell Line	Human	1,000,000 cells/ml	T3450
INS1E Cell line	Human	1,000,000 cells/ml	T3289
Jurkat Cell Line	Human	1,000,000 cells/ml	T3261
Jurkat E6.1 Cell Line	Human	1,000,000 cells/ml	T3273
K562 Cell Line	Human	1,000,000 cells/ml	T3258
L3.6pl Cell Line	Human	1,000,000 cells/ml	T3272
MCF7 Cell Line	Human	1,000,000 cells/ml	T3257
Ovcar3 Cell Line	Human	1,000,000 cells/ml	T3268
PC3-M Cell Line	Human	1,000,000 cells/ml	T3279
RL95-2 Cell line	Human	1,000,000 cells/ml	T3265
SKUT-1 Cell line	Human	1,000,000 cells/ml	T3266
SNU-387 Cell Line	Human	1,000,000 cells/ml	T3267
T24 Cell line	Human	1,000,000 cells/ml	T3270
THP-1 Cell Line	Human	1,000,000 cells/ml	T3274
U-87 MG Cell Line	Human	1,000,000 cells/ml	T3259
NIH3T3 Cell Line	Mouse	1,000,000 cells/ml	T3275
RCS Cell Line	Rat	1,000,000 cells/ml	T3290
MDCK Cell Line	Canine	1,000,000 cells/ml	T3299
Chicken Embryonic Fibroblast (DF1) Cell Line	Chicken	1,000,000 cells/ml	T3453

Premade CRISPR Knockout Vectors/Viruses & Cell Lines



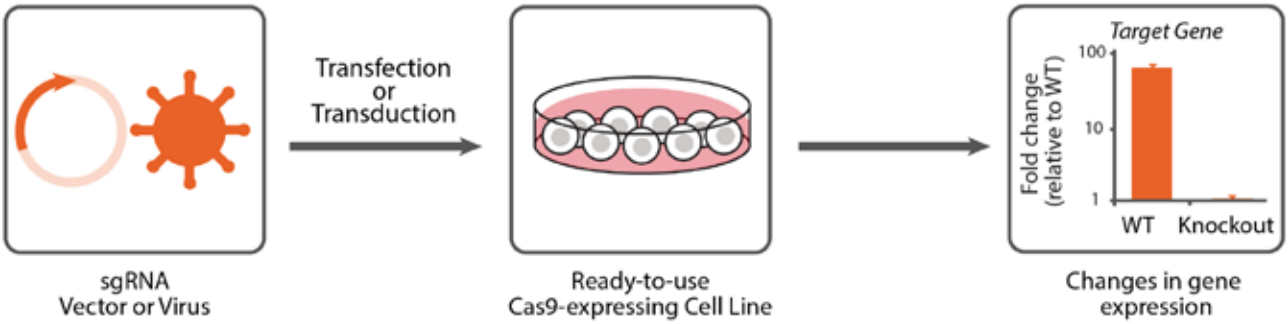
Features

- Ready-to-use knockout cell lines available for every human gene
- Ready-to-use sgRNA knockout collection available as lenti-, adeno-, AAV, and non-viral expression systems
- Convenient for gene function and drug screening studies

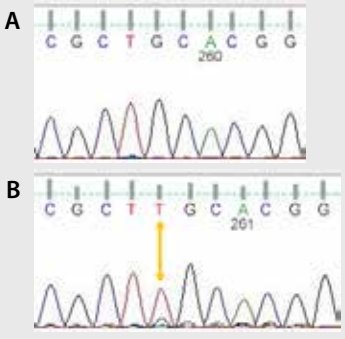
Take advantage of our genome-wide sgRNA collection!

The ability to precisely edit and change any part of an organism's genome has long been sought by scientists, and today we are closer to that goal than ever before. With the discovery of the CRISPR Cas9 system, scientists are now able to effortlessly and efficiently edit any gene of interest.

Take advantage of our ready-to-use genome-wide CRISPR Knockout Cell Line collection for your gene function and screening studies! Or, pair our premade sgRNA vectors or viruses for gene knockout with a Cas9-expressing cell line from our collection to knockout a gene yourself!



Top: Knockout a gene by pairing an sgRNA vector or virus (as Lenti-, Adeno-, AAV, or non-viral expression systems) from our genome-wide human, mouse, and rat collection with a Cas9-expressing cell line from our catalog.



Left: *Sanger sequencing.* (A) shows the wild type sequence, and (B) shows the edited sequence with an inserted thymine.

Right: *Surveyor assay.* In samples 2 & 3, the two bands of the Surveyor assay results indicate generation of cleavage products.

Human Genes | Featured CRISPR Knockout Cell Lines

Gene	Cell Line	Species	Cat. No.
ACTB	293T	Human	T6247
APOA1	HepG2	Human	121561111670
AR	U87-MG	Human	122331111970
ASS1	HepG2	Human	125701111670
ATF4	A549	Human	126101111470
AXL	HT1080 (1-IV)	Human	T6232
AXL	HT1080 (3-II)	Human	T6233
BRCA1	Fibroblasts	Human	T6245
BRCA1	MCF7	Human	134521111770
C1GALT1C1	Cardiomyocytes	Human	T6984
CARMIL1	Gingival Fibroblasts	Human	T6825
CD274	A549	Human	155161111470
CD59	MCF7	Human	155551111770
CDK12	HeLa	Human	156881111570
CXCL1	Hu L3.6pl	Human	T6221
CXCL8	Hu L3.6pl	Human	T6220
DDR1	MCF7	Human	177841111770
DHFR	293T	Human	181711111270
DJ-1	HeLa	Human	T6181
EDC4	293T	Human	T6241
ESRRA	HepG2	Human	T6805
EZH2	293	Human	196011111370
EZH2	293	Human	T6817
EZH2	293, GFP-tagged	Human	T6816
FAP	U87-MG	Human	202401111970
FASN	HepG2	Human	T6225
FBXL17	293T	Human	202941111270
FOLR	OVCAR3-A1	Human	T6818
G3BP1	A549	Human	211201111470
GFAT1	H1299	Human	T6199
GLUL	293T	Human	216541111270
HDAC6	293T	Human	231341111270
HNF4A	293	Human	236951111370
HNF4A	HepG2	Human	236951111670
IDS	293	Human	241981111370
IGF1R	MCF7	Human	243131111770

Gene	Cell Line	Species	Cat. No.
INSR	MCF7	Human	250021111770
LIMD1	HeLa	Human	T6357
MAPRE1	HeLa	Human	280831111570
METTL3	Caki-1	Human	T9623
MICA	293T	Human	285721111270
MICB	293T	Human	285801111270
MSLN	OVCAR3-A1	Human	T6228
MSLN	OVCAR3-A1	Human	T6820
MUC16	OVCAR3-A1	Human	T6819
NADSYN1	HepG2	Human	313951111670
NR2F6	Jurkat E6.1	Human	T6822
NUAK1	293T	Human	322591111270
NUAK1	293T	Human	T6809
PAH	HepG2	Human	359451111670
PCSK9	HepG2	Human	362381111670
PDPN	293T	Human	363341111270
PRSS21	OVCAR8	Human	T6811
PTPN6	THP-1	Human	T6813
PTPRA	Lung Fibroblasts	Human	T6827
RBM3	293	Human	T6823
RPL13A	293T	Human	T6246
Sirt1	HepG2	Human	438061111670
SLC35A1	293T	Human	441271111270
SLC35A2	293T	Human	T6814
SLC35D1	293T	Human	T6815
Smad3	U87-MG	Human	443941111970
TGFBR2	K562	Human	465961111870
TREM2	THP-1	Human	T6810
TRPV6	PC3-M	Human	T6219

Mouse | Featured CRISPR Knockout Cell Lines

Gene	Cell Line	Species	Cat. No.
Araf	RAW264.7 (T1-19)	Mouse	T9511
Araf	RAW264.7 (T3-3)	Mouse	T9529
MCT4	Py2T	Mouse	T6243
NACC1	ID8 (Clone T1-23)	Mouse	T6826

Gene	Cell Line	Species	Cat. No.
PD-L1	CT26	Mouse	T6237
PD-L1	MC38	Mouse	T6149
PTPN11	NIH3T3	Mouse	T6803

Other Species | Featured CRISPR Knockout Cell Lines

Gene	Cell Line	Species	Cat. No.
SLC35A1	CHO-S	Hamster	T6040
PDPN	COS-7	Monkey	T6039

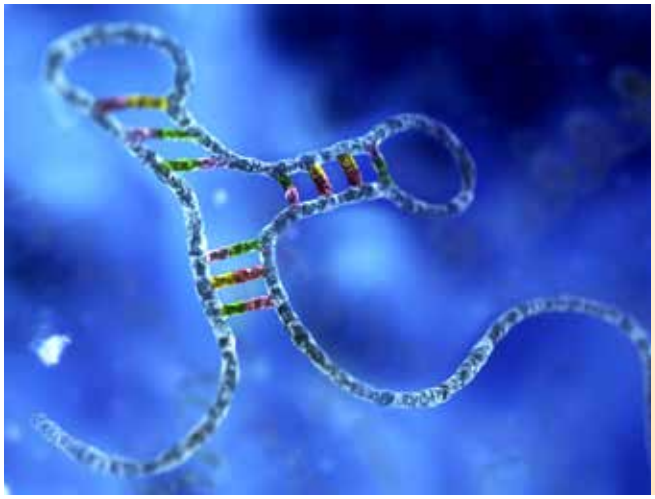
Control Cell Lines | Featured CRISPR Knockout Cell Lines

Gene	Cell Line	Species	Cat. No.
Scrambled sgRNA /Cas9	HCC-LM3	Human	T9744
Scrambled sgRNA /Cas9	SMMC-7721	Human	T9743
Scrambled sgRNA /Cas9	THP-1	Human	T9700
Scrambled sgRNA /Cas9	SMMC-7721	Human	T9743
Scrambled sgRNA /Cas9	HCC-LM3	Human	T9744
Scrambled sgRNA /Cas9	ID8	Mouse	T9626

3'UTR Cell Lines

Study miRNA regulation of gene expression using **abm**'s unique collection of 3'UTR miRNA reporter cell lines. Choose from human, mouse, or rat 3'UTRs!

3'UTR Cell Lines

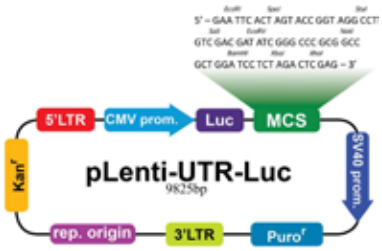


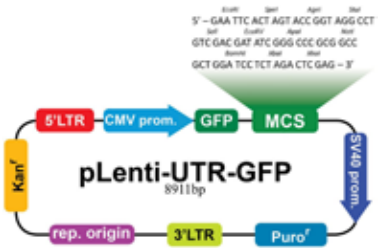
Features

- Validation of miRNA regulation of gene expression
- Study miRNA regulatory effects on your target gene
- Our 3'UTR cell lines are transfection ready, with no additional requirements needed

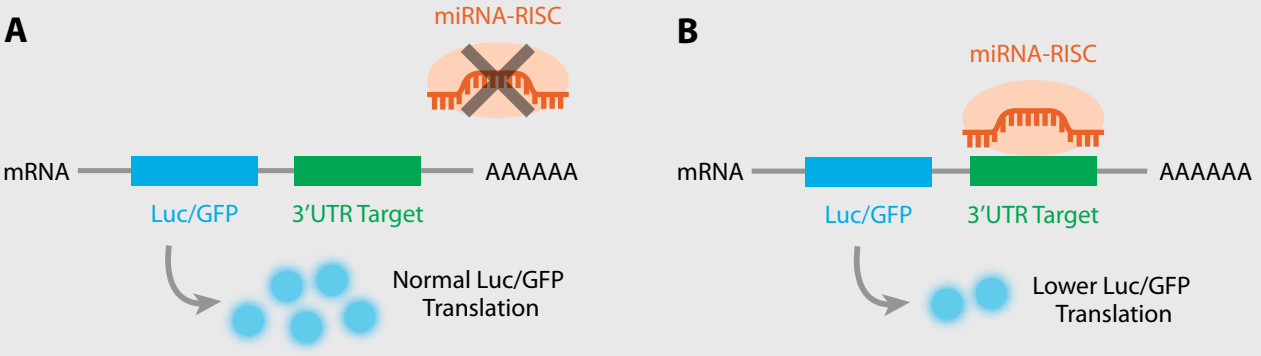
Why use our 3'UTR cell lines?

One of the most reliable, quantitative assays for the suppression of target genes by a specific miRNA is the utilization of a reporter gene, such as luciferase or GFP. The interaction between a specific miRNA and its target 3'UTR region can be evaluated by changes in downstream reporter gene expression (e.g. decrease in Luc/GFP expression). **abm** offers a complete collection of cell lines stably expressing the 3'UTR region of all human genes, with a choice of luciferase or GFP as the reporter gene.





Validate miRNA gene regulation through 3'UTR Target Sites



Top: abm's 3'UTR Reporter Cell Lines express your 3'UTR target with a reporter (e.g. GFP/Luc). (A) Without the presence of miRNA, reporter translation occurs as normal, resulting in bright fluoresence. (B) Addition of miRNA inhibits reporter translation, resulting in lower fluorescence.

Featured 3'UTR Cell Lines

Cell Type	Species	Unit	Cat. No.
APOC3 3'UTR Luciferase Stable Cell Line	Human	1,000,000 cells/ml	121790810190
BRD4 3'UTR GFP Stable Cell Line	Human	1,000,000 cells/ml	134610810290
CXCL10 3'UTR Luciferase Stable Cell Line	Human	1,000,000 cells/ml	171660810190
FGF9 3'UTR Luciferase Stable Cell Line	Human	1,000,000 cells/ml	205120810190
FGF9 3'UTR GFP Stable Cell Line	Human	1,000,000 cells/ml	205120810290
KRAS 3'UTR Luciferase Stable Cell Line	Human	1,000,000 cells/ml	259100810190
MED19 3'UTR Luciferase Stable Cell Line	Human	1,000,000 cells/ml	283030810190
PAPPA 3'UTR GFP Stable Cell Line	Human	1,000,000 cells/ml	359940810290
PDE5A 3'UTR Luciferase Stable Cell Line	Human	1,000,000 cells/ml	362880810190
PER2 3'UTR GFP Stable Cell Line	Human	1,000,000 cells/ml	363920810290
PER3 3'UTR GFP Stable Cell Line	Human	1,000,000 cells/ml	363930810290
RELA 3'UTR Luciferase Stable Cell Line	Human	1,000,000 cells/ml	388020810190
SIX2 3'UTR Luciferase Stable Cell Line	Human	1,000,000 cells/ml	438170810190
SREBF1 3'UTR Luciferase Stable Cell Line	Human	1,000,000 cells/ml	454470810190
TLR7 3'UTR Luciferase Stable Cell Line	Human	1,000,000 cells/ml	467810810190
TRAF6 3'UTR Luciferase Stable Cell Line	Human	1,000,000 cells/ml	474380810190
TRPM7 3'UTR GFP Stable Cell Line	Human	1,000,000 cells/ml	485260810290
TRPV1 3'UTR Luciferase Stable Cell Line	Human	1,000,000 cells/ml	485300810190
TXNIP 3'UTR Luciferase Stable Cell Line	Human	1,000,000 cells/ml	488790810190

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abm

Applied Biological Materials, Inc.

Contact India Distributor:

KRISHGEN BIOSYSTEMS
Unit Nos#318/319, Shah & Nahar,
Off Dr E Moses Road, Worli, Mumbai 400018.
Tel: (022)-49198700 |
email: sales1@krishgen,.com
www.krishgenbio.com