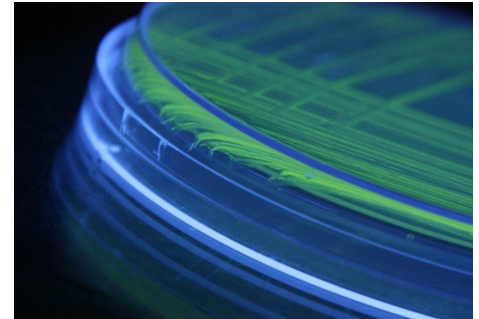


# REPORTER-LABELED CELLS

## WHAT TYPES OF REPORTER SYSTEMS ARE AVAILABLE?

Reporter systems are invaluable research tools for studying gene expression and for screening cell lines and microbial strains. Some of the most commonly used reporter systems are those that induce a visually identifiable phenotype such as the emission of fluorescent or luminescent light or the production of a pigmented product.

- **Fluorescent reporters** – Exhibits a fluorescent signal upon exposure to specific wavelengths of light
- **Luminescent reporters** – Uses a luciferase enzyme to catalyze a reaction with its substrate, luciferin, to produce visible light
- **Chromogenic reporters** – Employs an enzyme label that reacts with a substrate to produce a pigmented product

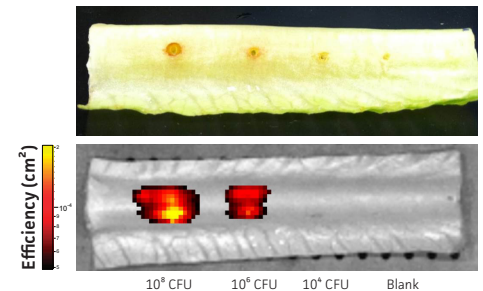


GFP-labeled *Pseudomonas aeruginosa*

## WHAT ARE THE ADVANTAGES OF REPORTER-LABELED CULTURES?

Reporter systems have a diverse array of applications in the basic and applied sciences. In biological research, reporter systems provide a readily measurable and distinguishable phenotype that can be applied in the analysis of:

- Quantification
- Detection
- Host-pathogen interactions
- Drug discovery
- Compound screening
- Toxicity studies
- *In vivo* imaging
- Quality control
- Pathway research
- Differentiation studies



*In vivo* detection of *Pseudomonas aeruginosa*-GFP in the mid-rib of *Lactuca sativa* L. var. *longifolia* after 48 h using an IVIS® Spectrum detection system (PerkinElmer)

## WHAT IS THE VALUE OF ATCC REPORTER-LABELED CULTURES?

Implementing a reporter system can be challenging and time consuming with regard to cloning procedures, transformation and transfection protocols, microbial and cellular growth requirements, and construct validation. To save you both the time and expense associated with the development of reporter-labeled cells, ATCC has successfully incorporated expression vectors harboring fluorescence, luciferase, or  $\beta$ -galactosidase reporter genes into a variety of clinically relevant microbial species and cell lines. These products have been thoroughly examined for:

- Reporter expression
- Vector stability
- Compatibility with detection technologies
- Growth rate
- Morphology
- Fitness trends

To browse our collection of reporter-labeled cultures, visit us online at [www.atcc.org/reporters](http://www.atcc.org/reporters).

## B-GALACTOSIDASE REPORTER CELLS

ATCC® No.†	Organism	Designation	Source of isolation
CRL-2199™	<i>Rattus norvegicus</i>	C6/LacZ	Brain
CRL-2200™	<i>Rattus norvegicus</i>	9L/lacZ	Brain
CRL-2303™	<i>Rattus norvegicus</i>	C6/lacZ7	Brain

## FLUORESCENT REPORTER CELLS

ATCC® No.†	Organism	Designation	Source of isolation
<b>ATCC CELL LINES</b>			
ACS-2001-10™	<i>Homo sapiens</i>	Angio-Ready™ Angiogenesis Assay System	Aortic and adipose
ACS-2001-2™	<i>Homo sapiens</i>	Angio-Ready™ Angiogenesis Assay System	Aortic and adipose
ACS-5005™	<i>Homo sapiens</i>	Neural Progenitor Cells Derived from XCL-1 DCXp-GFP	CD34+ cord blood
CCL-243-GFP™	<i>Homo sapiens</i>	K-562-GFP	Bone marrow
CRL-2794™	<i>Homo sapiens</i>	GFPu-1	Kidney
CRL-2915™	<i>Homo sapiens</i>	M4A4 GFP	
CRL-2916™	<i>Homo sapiens</i>	M4A4 LM3-2 GFP	
CRL-2917™	<i>Homo sapiens</i>	M4A4 LM3-4 CL16 GFP	
CRL-2919™	<i>Homo sapiens</i>	NM2C5 GFP	
CRL-3275™	<i>Homo sapiens</i>	Tau RD P301S FRET Biosensor	Embryonic kidney
CRL-4045™	<i>Homo sapiens</i>	TIME-GFP	Foreskin
CRL-4054™	<i>Homo sapiens</i>	TeloHAEC-GFP	Aorta
CRL-2583™	<i>Mus musculus</i>	C166-GFP	Yolk sac
CRL-2587™	<i>Mus musculus</i>	EOMA-GFP	
SCRC-1037™	<i>Mus musculus</i>	G-Olig2	Inner cell mass

### ATCC MICROORGANISMS

25922GFP™	<i>Escherichia coli</i>		Laboratory engineered
35150GFP™*	<i>Escherichia coli</i>	EDL 931	Laboratory engineered
51657GFP™*	<i>Escherichia coli</i>	A	Laboratory engineered
BAA-2196GFP™*	<i>Escherichia coli</i>	2003-3014	Laboratory engineered
BAA-2209GFP™*	<i>Escherichia coli</i>	2001-3357	Laboratory engineered
BAA-2215GFP™*	<i>Escherichia coli</i>	2006-3008	Laboratory engineered
BAA-2219GFP™*	<i>Escherichia coli</i>	2002-3211	Laboratory engineered
PRA-417™	<i>Leishmania aethiopica</i>	MHOM/ET/72/L100 GFP	Transfected with GFP. Strain MHOM/ET/72/L100 was originally isolated from a human, Ethiopia, 1972.
PRA-419™	<i>Leishmania major</i>	MHOM/SU/73/5ASKH GFP	Transfected with GFP. Strain MHOM/SU/73/5ASKH was originally isolated from a human, Ashkhabad, Turkmenkaya, former Soviet Union, 1973.
PRA-416™	<i>Leishmania mexicana</i>	MNYC/BZ/62/M379 GFP	Transfected with GFP. Strain MNYC/BZ/62/M379 was originally isolated from a Sumichrast's vesper rat, Cayo District, Belize, 1962.
PRA-418™	<i>Leishmania tropica</i>	MHOM/SU/58/OD GFP	Transfected with GFP. Strain MHOM/SU/58/OD was originally isolated from a human, Turkestan, former Soviet Union, 1958.
10145GFP™	<i>Pseudomonas aeruginosa</i>		
15692GFP™	<i>Pseudomonas aeruginosa</i>		
14028GFP™	<i>Salmonella enterica</i> subsp. <i>enterica</i> serovar Typhimurium		
12022GFP™	<i>Shigella flexneri</i>		
50832GFP™	<i>Trypanosoma cruzi</i>	Y GFP CL1	ATCC® 50832™ transfected with GFP

## LUMINESCENT REPORTER CELLS

ATCC® No.†	Organism	Designation	Source of isolation
<b>ATCC CELL LINES</b>			
ACS-5006™	<i>Homo sapiens</i>	Neural Progenitor Cells Derived from XCL-1 GFAPP-Nanoluc-Halotag	CD34+ cord blood
ACS-5007™	<i>Homo sapiens</i>	Neuronal Progenitor Cells Derived from XCL-1 MAP2p-Nanoluc-Halotag	CD34+ cord blood
CRL-11997™	<i>Homo sapiens</i>	HEP G2/2.2.1	Liver
CRL-2713™	<i>Homo sapiens</i>	MDA-kb2	Mammary gland/breast
CRL-2865™	<i>Homo sapiens</i>	T47D-KBluc	Mammary gland; breast/duct; derived from metastatic site: pleural effusion
CRL-3249™	<i>Homo sapiens</i>	HEK 293 STF	Embryonic kidney
CRL-2278™	<i>Mus musculus</i>	RAW 264.7 gamma NO(-)	
CRL-2829™	<i>Oncorhynchus mykiss</i>	RTG-P1	Mixed; testis, ovary
<b>ATCC MICROORGANISMS</b>			
BAA-2580-PACK™*	<i>Escherichia coli</i>		
BAA-2581-PACK™*	<i>Escherichia coli</i>		Laboratory engineered
BAA-2582-PACK™*	<i>Escherichia coli</i>		Laboratory engineered
BAA-2583-PACK™*	<i>Escherichia coli</i>		Laboratory engineered
BAA-2584-PACK™*	<i>Escherichia coli</i>		Laboratory engineered
BAA-2585-PACK™*	<i>Escherichia coli</i>		Laboratory engineered
BAA-2586-PACK™*	<i>Escherichia coli</i>		Laboratory engineered
BAA-2587-PACK™*	<i>Escherichia coli</i>		Laboratory engineered

†Several of these materials may have a restriction regarding their use. Please refer to the individual product entry for more information.

\*Distributed only within the United States.



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