B16F10-Fluc-Neo/mNIS-Puro

Product Description

Product Name: B16F10-Fluc-Neo/mNIS-Puro
Catalog Number: CL069
Lot Number: CL-IM63

Shipping conditions: Dry ice
Storage conditions: Store in vapor phase above liquid nitrogen

Species: Mouse (*Mus musculus*)
Cell type: Melanoma
Morphology: Epithelial
Growth mode: Adherent
Reporter genes: Firefly luciferase (Fluc)
Murine sodium iodide symporter (mNIS)
Selection genes: Neomycin (Neo)
Puromycin (Puro)
Media: DMEM, 10% FBS, 1% Penicillin/Streptomycin, 1 µg/mL puromycin, 0.8 mg/mL G418
Subculture: Split confluent culture 1:10 every 3-4 days using trypsin/EDTA
Incubation: 37°C with 5% CO_2

Description: B16F10-Fluc-Neo/mNIS-Puro is a polyclonal population of the murine melanoma cell line B16F10 transduced with lentiviral vectors encoding 1) the firefly luciferase (Fluc) cDNA under the spleen focus-forming virus (SFFV) promoter linked to the neomycin resistance gene (Neo) via a P2A cleavage peptide (Imanis #LV011) and 2) the murine sodium iodide symporter (mNIS) cDNA under the SFFV promoter and the puromycin resistance gene under the phosphoglycerate kinase (PGK) promoter (Imanis #LV022). High Fluc and mNIS expressing cells were selected using G418 and puromycin. The lentiviral vectors are self-inactivating (SIN) vectors in which the viral enhancer and promoter have been deleted. Transcription inactivation of the LTR in the SIN provirus increases biosafety by preventing mobilization by replication competent viruses and enables regulated expression of the genes from the internal promoters without *cis*-acting effects of the LTR (Miyoshi et al., J Virol. 1998).

Cell line Authentication: Authentication of the parental B16F10 cell line was performed by Short tandem repeat (STR) profiling with 27 STR loci. STR profiling of B16F10 cells are verified and there is no interspecies cross contamination detected.

It has been estimated that ~18-36% of cell lines utilized in biomedical research are contaminated or completely misidentified (Hughes et al., BioTechniques 2007). Consequently, verification of cell line identity is of critical significance. Several funding organizations, including NIH, and major publishers, such as those affiliated with the American Association for Cancer Research (AACR), have established requirements for cell line authentication prior to publication. More information can be found in the links below.
https://grants.nih.gov/grants/guide/notice-files/NOT-OD-08-017.html
http://www.aacrjournals.org/site/InstrAuthors/ifora.xhtml#celllineuse

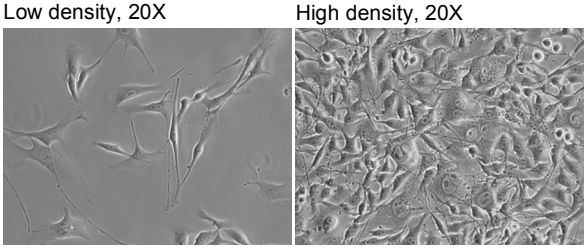
Certificate of Analysis

Testing performed by Imanis Life Sciences:

Test description	Result
Post thaw viable cell recovery	Pass QC
Sterility	No contamination detected
Mycoplasma	No contamination detected
Puromycin selection	Pass QC
Neomycin selection	Pass QC
Luciferase expression	Pass QC
^{125}I Uptake	Pass QC

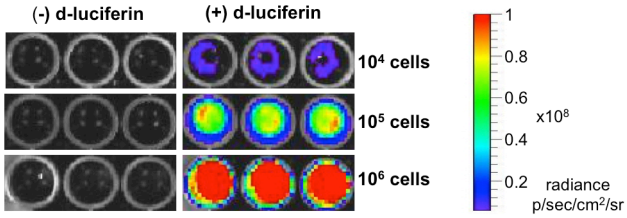
Morphology:

Low density, 20X | High density, 20X



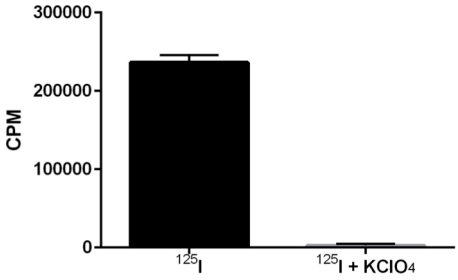
Low and high density photos taken 26 and 46 hours after thawing, respectively.

Luciferase Expression:



10^4, 10^5, or 10^6 cells were placed in wells of a 96-well plate and 0.3 mg of d-luciferin was added to the indicated wells. The plate was immediately imaged using a Xenogen IVIS Spectrum.

^{125}I Uptake



Uptake of ^{125}I by 3 x 10^5 cells was assayed in the presence or absence of $KClO_4$, an inhibitor of NIS-mediated ^{125}I uptake.

Quality control by: RLV
Quality Assurance by: SPR
Effective Date: 11/6/15

Limited Product Warranty
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For *in vitro* use only. This certificate is a declaration of analysis at the time of manufacture.

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