

Product Description

Product Name: 4T1-mNIS-Puro
 Catalog Number: CL065
 Lot Number: CL-IM56

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

Species: Mouse (*Mus musculus*)
 Cell type: Mammary carcinoma
 Morphology: Epithelial
 Growth mode: Adherent
 Reporter gene: Murine sodium iodide symporter (mNIS)
 Selection gene: Puromycin (Puro)
 Media: RPMI, 10% FBS, 1% Penicillin/Streptomycin,
 2 µg/mL puromycin
 Subculture: Split confluent culture 1:10 every 3-4 days using
 trypsin/EDTA
 Incubation: 37°C with 5% CO₂

Description: 4T1-mNIS-Puro is a polyclonal population of the murine mammary carcinoma cell line 4T1 transduced with a lentiviral vector (Imanis #LV022) encoding the murine sodium iodide symporter (mNIS) cDNA under the spleen focus-forming virus (SFFV) promoter and the puromycin (puro) resistance gene under the phosphoglycerate kinase I (PGK) promoter. High mNIS expressing cells were selected using 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 4T1 cell line was performed by Short tandem repeat (STR) profiling with 27 STR loci. STR profiling of 4T1 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/fora.xhtml#celllineuse>

Certificate of Analysis

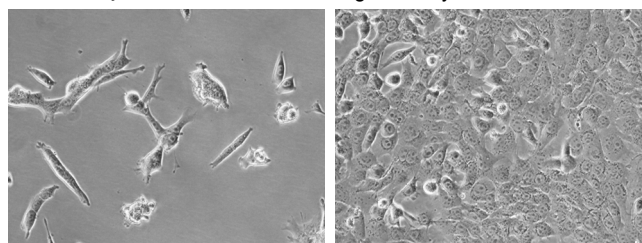
Testing performed by Imanis Life Sciences:

Test description	Result
Post thaw viable cell recovery	Pass QC
Sterility	No contamination detected
Mycoplasma	No contamination detected
Puromycin selection	Pass QC
¹²⁵ I uptake	Pass QC

Morphology:

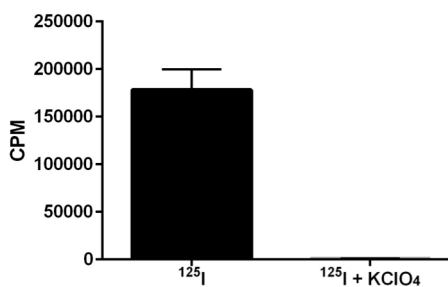
Low density, 20X

High density, 20X



Low and high density photos taken 25 and 48 hours after thawing, respectively.

¹²⁵I Uptake



Uptake of ¹²⁵I by 3 x 10⁵ cells was assayed in the presence or absence of KClO₄, an inhibitor of NIS-mediated ¹²⁵I uptake.

Quality control by: RLV

Quality Assurance by: SPR

Effective Date: 10/30/15

Limited Product Warranty

This warranty limits our liability to replacement of this product. No other warranties of any kind, express or implied, including, without limitation, implied warranties of merchantability or fitness for a particular purpose, are provided by Imanis. Imanis shall have no liability for any direct, indirect, consequential, or incidental damages arising out of the use, the results of use, or the inability to use this product.

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

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Office of Technology Development
The Salk Institute for Biological Studies
10010 North Torrey Pines Road
La Jolla, CA 92037
Phone: (858) 453-4100 extension 1278
Fax: (858) 546-8093

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Chief Operations Officer
Imanis Life Sciences
221 1st Ave SW STE 102
Rochester MN 55902
Tel: [\(507\) 218-2559](tel:5072182559)
Email: info@imanislife.com