

4T1-Luc | 305663

General information

Description	4T1-Luc is a cell line derived from a mammary adenocarcinoma of a BALB/c mouse. It is characterized by its high tumorigenicity and its ability to metastasize. The cells are immortalized and express luciferase (Luc) under the control of the 4T1 promoter. This cell line is used for studying breast cancer progression and for evaluating anti-cancer therapies. (BLI) bioluminescence imaging, which allows for non-invasive monitoring of tumor growth and metastasis in real-time. 4T1-Luc cells are highly invasive and metastasize to various organs, including the lungs, liver, and bone. The luciferase expression is used for bioluminescence imaging (BLI) to monitor tumor growth and metastasis in real-time.
Organism	Mouse
Tissue	Adipose tissue
Disease	Metastatic breast cancer

Characteristics

Breed/Subspecies	BALB/cfC3H
Gender	Female
Morphology	Small, white, and highly invasive
Growth properties	Highly invasive

Identification and documentation

Citation	4T1-Luc (Cytion 305663)
Biosafety level	1
NCBI_TaxID	10090
CellosaurusAccession	CVCL_J239
GMO Status	GMO-S1: The 4T1-Luc cell line is a genetically modified organism (GMO) because it contains a luciferase gene (Luc2) that has been introduced into the genome. This gene is used for bioluminescence imaging (BLI) to monitor tumor growth and metastasis in real-time.

Additional information

Product sheet

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Antigen expression Luc2 (CD44, CD24⁺)

Tumorigenic Yes, BALB/c.

MSI-status

MSI-H

Culture Medium RPMI 1640, w: 2.0 mM Glucose, w: 2.0 g/L NaHCO₃ (Cytion 820700a)

Supplements 10% FBS

Dissociation Reagent Trypsin

Subculturing Cells are grown in 25 cm² flasks in RPMI 1640 medium supplemented with 10% FBS. Cells are harvested by trypsinization and resuspended in PBS. Cells are seeded into 96-well plates at a density of 100,000 cells per well.

Seeding density 1 x 10⁵ cells/well

Fluid renewal 2-3 times per week

Freeze medium RPMI 1640 medium, 10% FBS, 10% DMSO

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**Thawing and
Culturing Cells**

1. 将细胞冻存管放入 37°C 水浴中快速解冻，离心 5 分钟，将培养基转移到含有 10% FBS 的完全培养基中，并加入 100 U/ml 青霉素、100 U/ml 链霉素和 100 U/ml 两性霉素 B。
2. 将细胞接种到 25 cm² 培养瓶中，用完全培养基覆盖。将培养瓶置于 37°C、5% CO₂ 培养箱中培养。当细胞达到 70-80% 汇合度时，进行传代。
3. 将细胞传代到新的 25 cm² 培养瓶中，用完全培养基覆盖。将培养瓶置于 37°C、5% CO₂ 培养箱中培养。当细胞达到 70-80% 汇合度时，进行传代。
4. 将细胞传代到新的 25 cm² 培养瓶中，用完全培养基覆盖。将培养瓶置于 37°C、5% CO₂ 培养箱中培养。当细胞达到 70-80% 汇合度时，进行传代。
5. 将细胞传代到新的 25 cm² 培养瓶中，用完全培养基覆盖。将培养瓶置于 37°C、5% CO₂ 培养箱中培养。当细胞达到 70-80% 汇合度时，进行传代。
6. 将细胞传代到新的 25 cm² 培养瓶中，用完全培养基覆盖。将培养瓶置于 37°C、5% CO₂ 培养箱中培养。当细胞达到 70-80% 汇合度时，进行传代。
7. 将细胞传代到新的 25 cm² 培养瓶中，用完全培养基覆盖。将培养瓶置于 37°C、5% CO₂ 培养箱中培养。当细胞达到 70-80% 汇合度时，进行传代。

**Incubation
Atmosphere**

37°C, 5% CO₂, 饱和湿度

**Shipping
Conditions**

细胞应在 2-8°C 下运输，并在收到后立即转移到 37°C 培养箱中。

**Storage
Conditions**

细胞应在 -150°C 下长期储存，有效期为 196 天。

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