



Humanized Murine Tumor Cell Lines

Humanized murine tumor cell lines are genome-modified mouse tumor cells in which a target murine gene is replaced with its human counterpart. The humanized mouse cells can be implanted into immunocompetent mice with the same strain/genetic background, and can be applied to in vitro mechanism research and in vivo syngeneic tumor growth analysis.



Based on gene editing technology, a part of the mouse F3 gene, for example, was replaced by the open reading frame of human F3 gene with a foreign promoter. At the same time, a frameshift was introduced to the coding region of the mouse F3 gene, resulting in a loss of expression of the mouse F3 protein, and a stable expression of the human F3 protein.

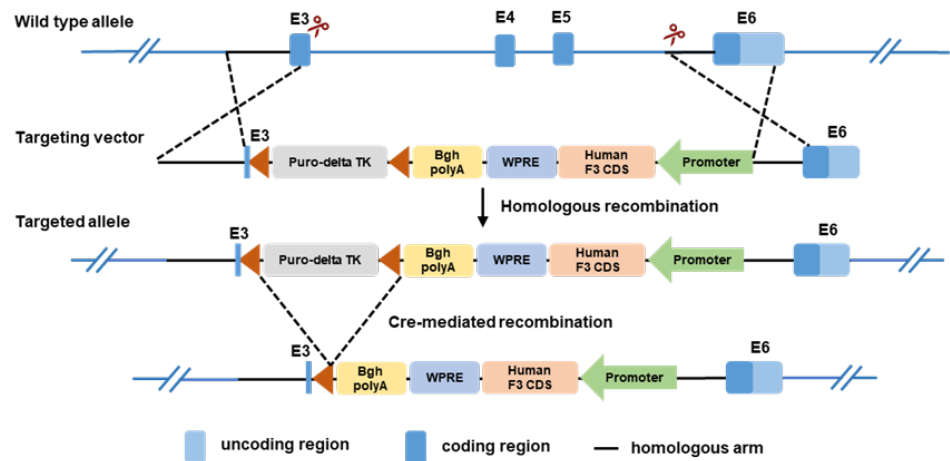


Figure 1. Diagram of the construction strategy of the F3 humanized MC38 cell line

Creative Biogene offers a series of humanized murine tumor cell lines that have been genetically engineered to express human immune checkpoint proteins, which can be used to evaluate the efficacy of human immune checkpoint antibodies or inhibitors *in vivo* and provide a cell line model for the screening of preclinical tumor immune candidates.

Construction Process

Monoclonal preparation

- Genotype identification
- Protein expression identification

Verification of tumorigenesis

- Detection of protein expression after tumor formation
- Validation of tumorigenic stability in C57BL/6 or humanized animals

Establishment of bank cells

- Verification of tumorigenesis and post-tumorigenesis protein expression
- Mycoplasma, virus detection

Applications

1. *In vivo* tumor growth assays of syngeneic models
2. *In vitro* tumor mechanistic studies
3. Drug screening

Our Advantages

1. Stable tumor cell line validated by multiple methods
2. Verification of tumorigenesis
3. Strict quality control

Quality Control

1. Flow cytometry analysis
2. Verification of tumorigenesis
3. Mycoplasma test: PCR & MycoAlert™ Kit
4. Bacterial and fungal test

CSC-RH0065M Humanized CD47 Murine Tumor Cell Lines-CT26.WT

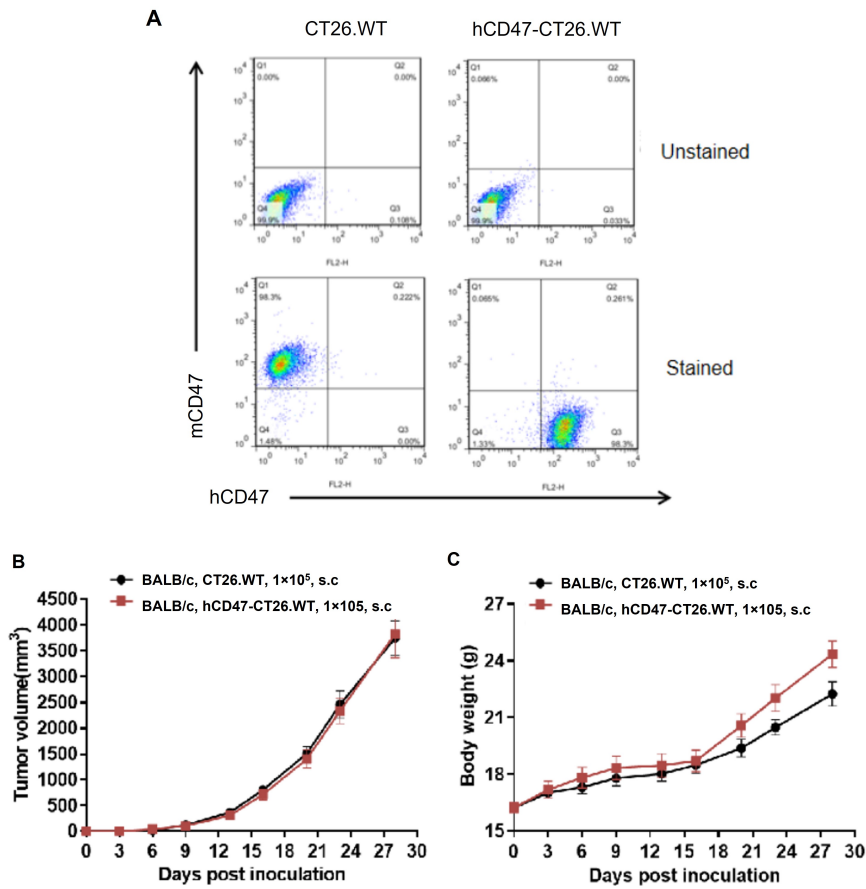
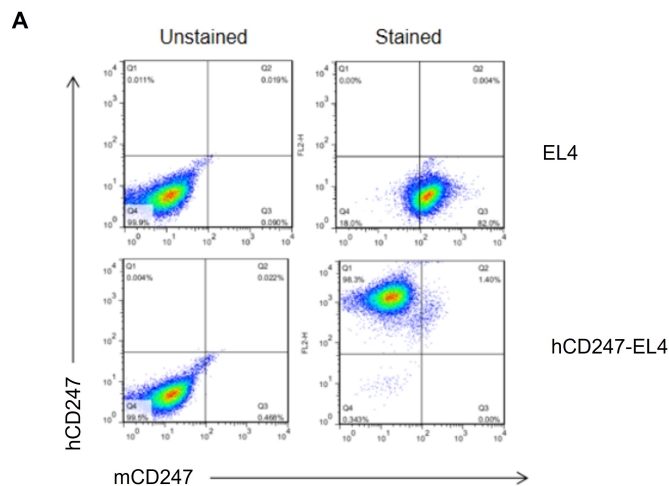


Figure 2. A: The expressions of human CD47 and mouse CD47 in hCD47-CT26.WT cell lines were detected by flow cytometry. B, C: Subcutaneous homograft tumor growth of hCD47-CT26.WT cells. Tumor volume and body weight were measured twice a week. (B) Average tumor volume ± SEM. (C) Body weight (Mean ± SEM).

CSC-RH0064M Humanized CD274 Murine Tumor Cell Lines-EL4



CSC-RH0064M Humanized CD274 Murine Tumor Cell Lines-EL4

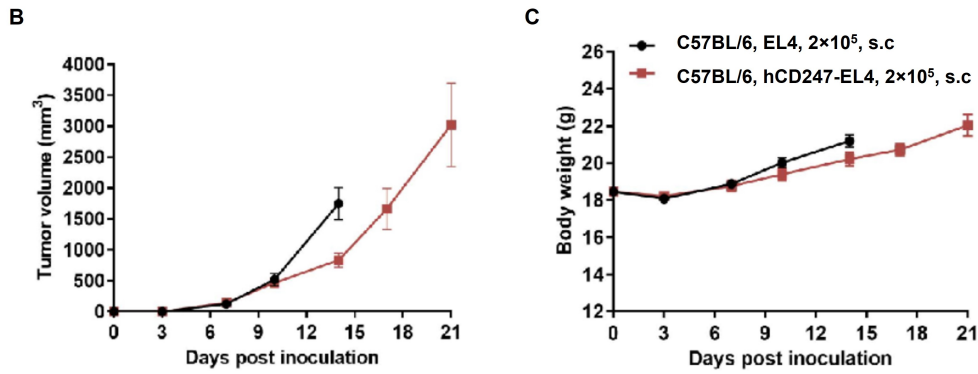


Figure 3. A: The expressions of human CD274 and mouse CD274 in hCD247-EL4 cell lines were detected by flow cytometry. B, C: Subcutaneous homograft tumor growth of hCD247-EL4 cells. Tumor volume and body weight were measured twice a week. (B) Average tumor volume \pm SEM. (C) Body weight (Mean \pm SEM).

CSC-RH0077M Humanized CD38 Murine Tumor Cell Lines-MC38

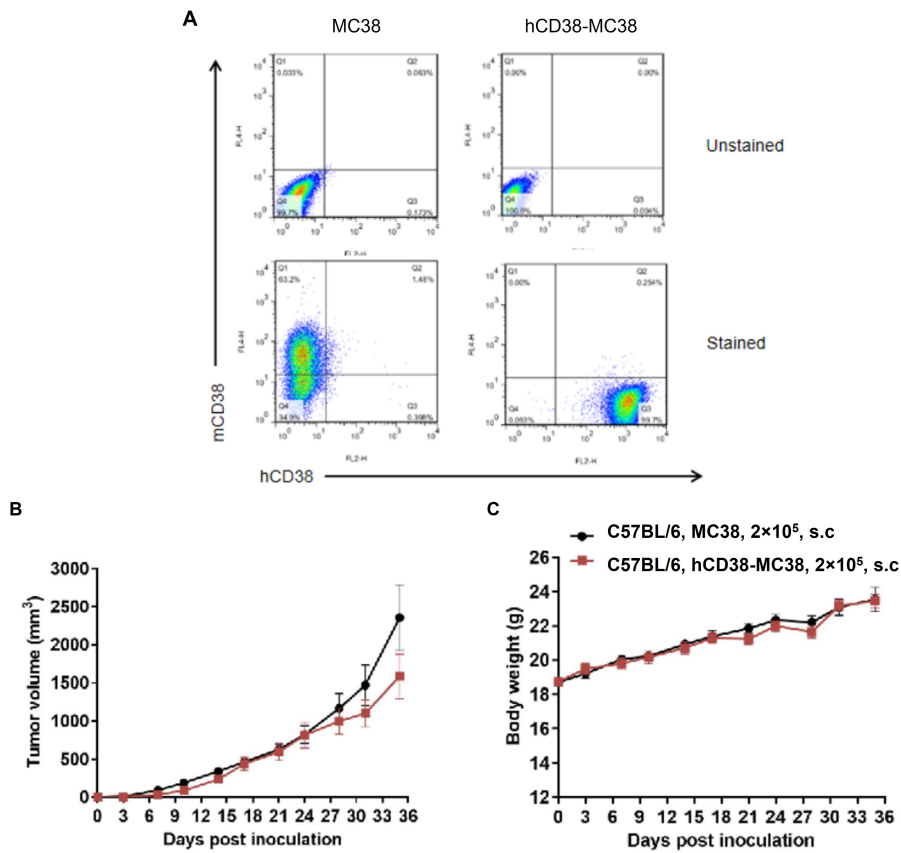


Figure 4. A: The expressions of human CD38 and mouse CD38 in hCD38-MC38 cell lines were detected by flow cytometry. B, C: Subcutaneous homograft tumor growth of hCD38-MC38 cells. Tumor volume and body weight were measured twice a week. (B) Average tumor volume \pm SEM. (C) Body weight (Mean \pm SEM).

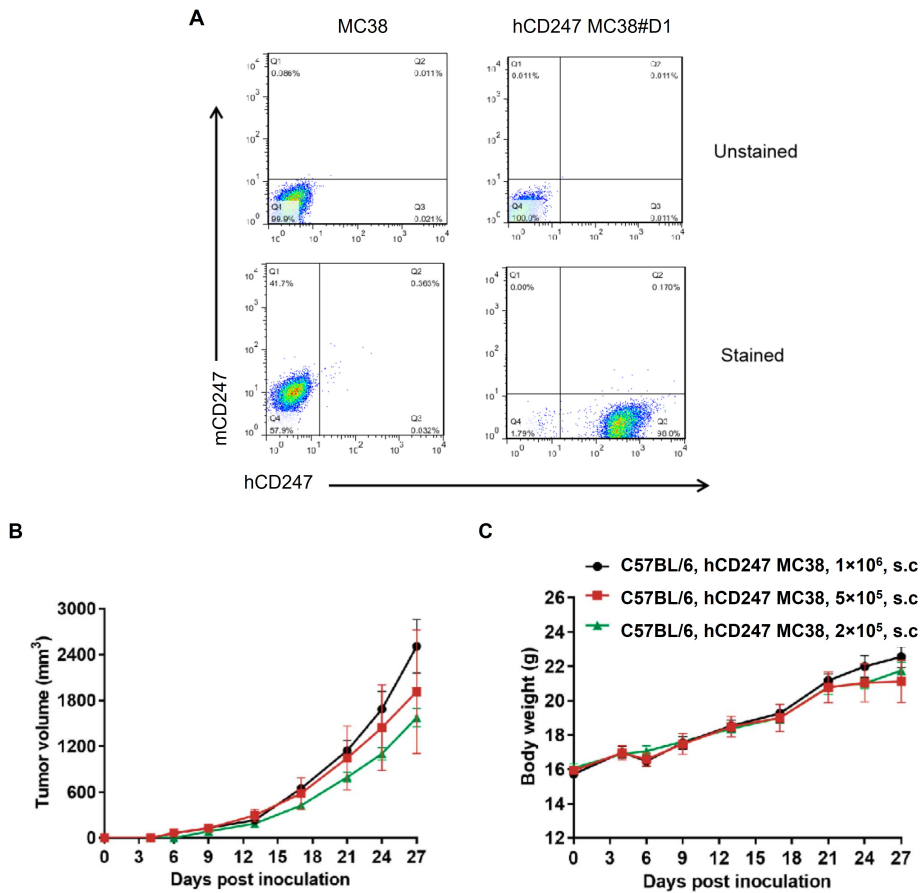


Figure 5. A: The expressions of human CD274 and mouse CD274 in hCD247-MC38 cell lines were detected by flow cytometry. B, C: Subcutaneous homograft tumor growth of hCD247-MC38 cells. Tumor volume and body weight were measured twice a week. (B) Average tumor volume \pm SEM. (C) Body weight (Mean \pm SEM).

Cat. No.	Product Name	Host Cell
CSC-RH0001M	Humanized CD274/CD47 Murine Tumor Cell Line	MC38
CSC-RH0002M	Humanized CD274/PCSK9 Murine Tumor Cell Line	MC38
CSC-RH0003M	Humanized LRRC15 Murine Tumor Cell Line	MC38
CSC-RH0004M	Humanized EFEMP1 Murine Tumor Cell Line	MC38
CSC-RH0005M	Humanized MMP8 Murine Tumor Cell Line	MC38

Product List

Cat. No.	Product Name	Host Cell
CSC-RH0006M	Humanized MSLN Murine Tumor Cell Line	MC38
CSC-RH0007M	Humanized CDH17 Murine Tumor Cell Line	MC38
CSC-RH0008M	Humanized CD200 Murine Tumor Cell Line	MC38
CSC-RH0009M	Humanized ERBB2 Murine Tumor Cell Line	CT26.WT
CSC-RH0010M	Humanized CD274/ROR1 Murine Tumor Cell Line	MC38
CSC-RH0011M	Humanized ADAM9 Murine Tumor Cell Line	MC38
CSC-RH0012M	Humanized ITGA7 Murine Tumor Cell Line	MC38
CSC-RH0013M	Humanized CA12 Murine Tumor Cell Line	MC38
CSC-RH0014M	Humanized VCAM1 Murine Tumor Cell Line	MC38
CSC-RH0015M	Humanized MPL Murine Tumor Cell Line	MC38
CSC-RH0016M	Humanized NCAM1 Murine Tumor Cell Line	MC38
CSC-RH0017M	Humanized LRRN1 Murine Tumor Cell Line	MC38
CSC-RH0018M	Humanized CD151 Murine Tumor Cell Line	MC38
CSC-RH0019M	Humanized STEAP1 Murine Tumor Cell Line	MC38
CSC-RH0020M	Humanized GPNMB Murine Tumor Cell Line	MC38
CSC-RH0021M	Humanized ALB Murine Tumor Cell Line	MC38
CSC-RH0022M	Humanized MME Murine Tumor Cell Line	MC38
CSC-RH0023M	Humanized GAS6 Murine Tumor Cell Line	MC38
CSC-RH0024M	Humanized NECTIN2 Murine Tumor Cell Line	MC38
CSC-RH0025M	Humanized CCR9 Murine Tumor Cell Line	MC38
CSC-RH0026M	Humanized CD274/ERBB2 Murine Tumor Cell Line	MC38
CSC-RH0027M	Humanized HLA-E/CD274 Murine Tumor Cell Line	MC38

Product List

Cat. No.	Product Name	Host Cell
CSC-RH0028M	Humanized EPCAM Murine Tumor Cell Line	B16-F10
CSC-RH0029M	Humanized EPCAM Murine Tumor Cell Line	LLC1
CSC-RH0030M	Humanized MUC1 Murine Tumor Cell Line	MC38
CSC-RH0031M	Humanized DLL3 Murine Tumor Cell Line	B16-F10
CSC-RH0032M	Humanized B2M/HLA-G Murine Tumor Cell Line	MC38
CSC-RH0033M	Humanized JAM3 Murine Tumor Cell Line	MC38
CSC-RH0034M	Humanized ERBB3 Murine Tumor Cell Line	MC38
CSC-RH0035M	Humanized PLAU Murine Tumor Cell Line	MC38
CSC-RH0036M	Humanized CD274/CD276 Murine Tumor Cell Line	MC38
CSC-RH0037M	Humanized MSLN Murine Tumor Cell Line	ID8
CSC-RH0038M	Humanized GUCY2C Murine Tumor Cell Line	MC38
CSC-RH0039M	Humanized GPC3 Murine Tumor Cell Line	MC38
CSC-RH0040M	Humanized CCL2 Murine Tumor Cell Line	MC38
CSC-RH0041M	Humanized CD38/Luc Murine Tumor Cell Line	E.G7-OVA
CSC-RH0042M	Humanized TPBG Murine Tumor Cell Line	B16-F10
CSC-RH0043M	Humanized AMHR2 Murine Tumor Cell Line	MC38
CSC-RH0044M	Humanized LAIR1/Luc Murine Tumor Cell Line	EL4
CSC-RH0045M	Humanized GPRC5D Murine Tumor Cell Line	MC38
CSC-RH0046M	Humanized FOLH1 Murine Tumor Cell Line	MC38
CSC-RH0047M	Humanized CCR4/Luc Murine Tumor Cell Line	EL4
CSC-RH0048M	Humanized CLDN6 Murine Tumor Cell Line	MC38
CSC-RH0049M	Humanized CD276 Murine Tumor Cell Line	CT26.WT

Product List

Cat. No.	Product Name	Host Cell
CSC-RH0050M	Humanized CD36 Murine Tumor Cell Line	MC38
CSC-RH0051M	Humanized FGL1 Murine Tumor Cell Line	MC38
CSC-RH0052M	Humanized CXCR4 Murine Tumor Cell Line	MC38
CSC-RH0053M	Humanized NECTIN4 Murine Tumor Cell Line	MC38
CSC-RH0054M	Humanized PVR Murine Tumor Cell Line	MC38
CSC-RH0055M	Humanized ERBB2 Murine Tumor Cell Line	MC38
CSC-RH0056M	Humanized DLL3 Murine Tumor Cell Line	MC38
CSC-RH0057M	Humanized TNFRSF12A Murine Tumor Cell Line	MC38
CSC-RH0058M	Humanized VTCN1 Murine Tumor Cell Line	B16-F10
CSC-RH0059M	Humanized CD19 Murine Tumor Cell Line	EL4
CSC-RH0061M	Humanized ERBB2 Murine Tumor Cell Line	EL4
CSC-RH0062M	Humanized CD276 Murine Tumor Cell Line	EL4
CSC-RH0063M	Humanized EPCAM Murine Tumor Cell Line	EL4
CSC-RH0064M	Humanized CD274 Murine Tumor Cell Line	EL4
CSC-RH0065M	Humanized CD47 Murine Tumor Cell Line	CT26.WT
CSC-RH0066M	Humanized CD274 Murine Tumor Cell Line	B16-F10
CSC-RH0067M	Humanized CD274 Murine Tumor Cell Line	LLC1
CSC-RH0068M	Humanized AMHR2 Murine Tumor Cell Line	ID8
CSC-RH0069M	Humanized CXCR5 Murine Tumor Cell Line	MC38
CSC-RH0070M	Humanized F3 Murine Tumor Cell Line	MC38
CSC-RH0071M	Humanized CD24 Murine Tumor Cell Line	MC38
CSC-RH0072M	Humanized CD37 Murine Tumor Cell Line	MC38

Product List

Cat. No.	Product Name	Host Cell
CSC-RH0073M	Humanized FAP Murine Tumor Cell Line	MC38
CSC-RH0074M	Humanized C5 Murine Tumor Cell Line	MC38
CSC-RH0075M	Humanized MERTK Murine Tumor Cell Line	MC38
CSC-RH0076M	Humanized CD274/CEACAM5 Murine Tumor Cell Line	MC38
CSC-RH0077M	Humanized CD38 Murine Tumor Cell Line	MC38
CSC-RH0078M	Humanized CD19 Murine Tumor Cell Line	MC38
CSC-RH0079M	Humanized HLA-E Murine Tumor Cell Line	MC38
CSC-RH0080M	Humanized TPBG Murine Tumor Cell Line	MC38
CSC-RH0081M	Humanized SIGLEC15 Murine Tumor Cell Line	MC38
CSC-RH0082M	Humanized CXCR2 Murine Tumor Cell Line	MC38
CSC-RH0083M	Humanized VTCN1 Murine Tumor Cell Line	MC38
CSC-RH0084M	Humanized CCR4 Murine Tumor Cell Line	MC38
CSC-RH0085M	Humanized ROR1 Murine Tumor Cell Line	MC38
CSC-RH0086M	Humanized NT5E Murine Tumor Cell Line	MC38
CSC-RH0087M	Humanized TNFRSF1B Murine Tumor Cell Line	MC38
CSC-RH0088M	Humanized EPCAM Murine Tumor Cell Line	MC38
CSC-RH0089M	Humanized CD276 Murine Tumor Cell Line	MC38
CSC-RH0090M	Humanized PDCD1LG2 Murine Tumor Cell Line	MC38
CSC-RH0091M	Humanized CD47 Murine Tumor Cell Line	MC38
CSC-RH0092M	Humanized TNFRSF14 Murine Tumor Cell Line	MC38
CSC-RH0093M	Humanized CEACAM1 Murine Tumor Cell Line	MC38
CSC-RH0094M	Humanized CD274 Murine Tumor Cell Line	MC38

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