

U-251 MG/TMZ-Luc Cells | 305705**General information**

Organism	Human
Tissue	Brain
Disease	Astrocytoma
Synonyms	U-251MG, U-251-MG, U-251_MG, U251-MG, U251MG, U-251, U251, U251n, U251N, 251 MG, 251MG

Characteristics

Age	75 years
Gender	Male
Ethnicity	Caucasian
Morphology	Epithelial-like
Growth properties	Adherent

Regulatory Data

Citation	U251MG/TMZ-Luc (Cytion catalog number 305705)
Biosafety level	1
NCBI_TaxID	9606
GMO Status	GMO-S1: This U-251 MG temozolomide-resistant glioblastoma line contains a-Luc construct enabling bioluminescent monitoring of drug resistance. This classification applies only within Germany and may differ elsewhere.

Biomolecular Data

Protein expression	Luc
Tumorigenic	SMRV: Negative, as confirmed by Real-Time PCR

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Mutational profile TMZ-resistant

Handling

Culture Medium DMEM

Freeze medium As a cryopreservation medium, we use complete growth medium + 10% DMSO for adequate post-thaw viability.

Thawing and Culturing Cells

1. Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit.
2. Upon receipt, either store the cryovial immediately at temperatures below -150°C to ensure the preservation of cellular integrity, or proceed to step 3 if immediate culturing is required.
3. For immediate culturing, swiftly thaw the vial by immersing it in a 37°C water bath with clean water and an antimicrobial agent, agitating gently for 40-60 seconds until a small ice clump remains.
4. Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening.
5. Carefully open the disinfected vial and transfer the cell suspension into a 15 ml centrifuge tube containing 8 ml of room-temperature culture medium, mixing gently.
6. Centrifuge the mixture at 200 x g for 5 minutes, carefully discard the supernatant containing freezing medium.
7. Follow the procedure described under Post-Thaw Recovery

Incubation Atmosphere 37°C, 5% CO₂, humidified atmosphere.

Shipping Conditions Cryopreserved cell lines are shipped on dry ice in validated, insulated packaging with sufficient refrigerant to maintain approximately -78 °C throughout transit. On receipt, inspect the container immediately and transfer vials without delay to appropriate storage.

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**Storage
Conditions**

For long-term preservation, place vials in vapor-phase liquid nitrogen at about -150 to -196 °C. Storage at -80 °C is acceptable only as a short interim step before transfer to liquid nitrogen.

Quality Control & Molecular Analysis