

U251 MG/TMZ | 305884

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Description	U251 MG/TMZ 是一种由 U251 MG 细胞系衍生而来的细胞系，具有对替莫唑胺 (TMZ) 的耐药性。该细胞系常用于研究 TMZ 耐药机制及开发新的抗癌药物。 替莫唑胺 (TMZ) 是一种口服化疗药物，用于治疗胶质瘤。其作用机制是通过抑制 DNA 甲基化酶 O6-methylguanine-DNA methyltransferase (MGMT) 的活性，导致 DNA 甲基化，从而抑制肿瘤细胞的生长。 U251 MG/TMZ 细胞系对 TMZ 的耐药性可能与 MGMT 活性降低、DNA 修复机制增强或其他因素有关。该细胞系可用于研究 TMZ 耐药机制及开发新的抗癌药物。
Organism	人
Tissue	胶质瘤
Disease	胶质瘤
Metastatic site	胶质瘤 (脑)
Applications	研究 TMZ 耐药机制; 研究 DNA 甲基化酶 MGMT 的活性; 研究 DNA 修复机制; 研究 MGMT 抑制剂; 研究 MGMT 抑制剂与 TMZ 联合治疗; 研究 MGMT 抑制剂与 TMZ 联合治疗对胶质瘤的疗效。
Synonyms	U-251MG, U-251-MG, U-251_MG, U251-MG, U251MG, U-251, U251, U251n, U251N, 251 MG, 251MG

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Age	75 𐄀𐄀𐄀𐄀
Gender	𐄀𐄀𐄀
Ethnicity	𐄀𐄀𐄀𐄀𐄀𐄀𐄀
Morphology	𐄀𐄀𐄀𐄀 𐄀𐄀𐄀𐄀𐄀
Cell type	𐄀𐄀𐄀 𐄀𐄀𐄀𐄀 (𐄀𐄀𐄀𐄀𐄀𐄀𐄀𐄀𐄀𐄀𐄀)
Growth properties	𐄀𐄀𐄀

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Citation	U251 MG/TMZ (XXXXX XXXXXXXX Cytion 305884)
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Biosafety level	1
NCBI_TaxID	9606
CellosaurusAccession	U251 MG/TMZ (U251 MG/TMZ; U251 MG CVCL_0021)
GMO Status	(U251 MG/TMZ); U251 MG/TMZ (U251 MG/TMZ)
Tumorigenic	SMRV: (U251 MG/TMZ), U251 MG/TMZ PCR (U251 MG/TMZ)
Mutational profile	(U251 MG/TMZ) TMZ
Culture Medium	DMEM, w: 4.5 g/L (U251 MG/TMZ), w: 4 mM L-(U251 MG/TMZ), w: 3.7 g/L NaHCO ₃ , w: 1.0 mM (U251 MG/TMZ) Cytion 820300a
Supplements	(U251 MG/TMZ) 10% FBS -50 μM (U251 MG/TMZ) (TMZ)
Dissociation Reagent	(U251 MG/TMZ)
Doubling time	-36 -48 (U251 MG/TMZ) (U251 MG/TMZ) (U251 MG/TMZ) (U251 MG/TMZ) (U251 MG/TMZ) (U251 MG/TMZ) (U251 MG/TMZ) (U251 MG/TMZ) (U251 MG/TMZ) (U251 MG/TMZ)
Split ratio	1 :3
Seeding density	1 × 10 ⁴ /cm ²
Fluid renewal	2 :3 (U251 MG/TMZ) (U251 MG/TMZ)
Freeze medium	(U251 MG/TMZ) (U251 MG/TMZ), (U251 MG/TMZ) (U251 MG/TMZ) + 10% DMSO (U251 MG/TMZ) (U251 MG/TMZ) (U251 MG/TMZ) (U251 MG/TMZ) (U251 MG/TMZ)

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Thawing and
Culturing Cells

1. Thaw the cells quickly in a water bath at 37°C. Remove the cells from the bath and centrifuge at 300 x g for 5 minutes. Discard the supernatant and resuspend the cells in 1 ml of complete medium.
2. Seed the cells into a 25 cm² flask containing 10 ml of complete medium. Incubate the cells at 37°C in 5% CO₂ for 24 hours.
3. After 24 hours, the cells should be visible. Add 10 ml of complete medium to the flask.
4. When the cells reach confluence, passage them into a new flask. The cells should reach 70% confluence within 7 days.
5. The cells can be passaged into a 75 cm² flask or a 150 cm² flask. The cells should reach 70% confluence within 7 days.
6. The cells can be passaged into a 25 cm² flask containing 10 ml of complete medium. The cells should reach 70% confluence within 7 days.
7. The cells can be passaged into a 75 cm² flask or a 150 cm² flask. The cells should reach 70% confluence within 7 days.

Incubation
Atmosphere

37°C, 5% CO₂, humidified

Flask Coating

Not required

Shipping
Conditions

Cells are shipped in a dry ice container at -78°C.

Storage
Conditions

Cells can be stored at -150°C for up to 196 days.

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