

Product sheet

MDA-MB-231 | 300275

Cell Line

Description MDA-MB-231 is a cell line derived from a metastatic site of a breast cancer patient. It is a highly invasive, triple-negative breast cancer cell line. MDA-MB-231 cells are characterized by their ability to form mammary xenografts in immunodeficient mice. The cell line is known for its high growth rate and its ability to metastasize to various sites, including the lungs, liver, and brain. MDA-MB-231 cells are commonly used in breast cancer research, particularly in studies related to drug resistance and metastasis. Key genetic features include the presence of TP53, KRAS, and BRAF mutations.

Organism Human

Tissue Breast

Disease Breast Cancer

Metastatic site Lung, Liver, Brain

Synonyms MDA_MB_231, MDA-MB 231, MDA.MB.231, MDA MB 231, MDA MB231, MDA Mb231, MDA-MB231, MDAMB-231, MDAMB231, MDA-231, MDA-231P, MDA231, MDA231-BRE, MB231, MD Anderson-Metastatic Breast-231

Cell Line Characteristics

Age 51 years

Gender Female

Ethnicity Caucasian

Morphology Epithelial

Growth properties Adherent

Cell Line Information

Citation MDA-MB-231 (ATCC CCL-231) | Cytion 300275

Biosafety level 1

NCBI_TaxID 9606

CellosaurusAccession CVCL_0062

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Cell Line: MDA-MB-231

Cell Type: Breast Cancer

Culture Medium DMEM:Ham's F12 (1:1), w: 3.1 g/L $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$, w: 2.5 mM L- $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$, w: 15 mM HEPES, w: 0.5 mM $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$, w: 1.2 g/L NaHCO_3 820400a)

Supplements $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$ 5% FBS

Dissociation Reagent $\text{CaCl}_2 \cdot 2\text{H}_2\text{O}$

Subculturing Cells are cultured in DMEM:Ham's F12 (1:1) supplemented with 5% FBS in T25, T75 or 300 cm² flasks. Media is replaced every 3-5 days. Cells are passaged every 3-4 days.

Split ratio 1:2 to 1:4

Fluid renewal 2-3 times per week

Freeze medium DMEM:Ham's F12 (1:1) supplemented with 10% FBS and 10% DMSO in 1.8 mL cryovials.

Thawing and Culturing Cells

1. Thaw cryovials in a 37°C water bath.
2. Dilute cells into 10 mL of DMEM:Ham's F12 (1:1) supplemented with 10% FBS.
3. Seed cells into T25, T75 or 300 cm² flasks.
4. Allow cells to attach for 24-48 hours.
5. Replace media with fresh DMEM:Ham's F12 (1:1) supplemented with 10% FBS.
6. Monitor cell growth and confluency.
7. Pass cells when they reach 70-80% confluency.
8. Harvest cells for analysis or further culture.

