

Product sheet

MDA-MB-453 | 305042

Cell Line

**Description** MDA-MB-453 is a cell line derived from a primary mammary carcinoma. It is characterized by its high tumorigenicity and ability to metastasize. The cell line is widely used in research to study breast cancer biology and drug response.

**Organism** Human

**Tissue** Mammary gland, Adipose tissue

**Disease** Breast cancer

**Metastatic site** Lung, Liver, Bone, Brain

**Synonyms** MDA-MB 453, MDA MB 453, MDA-MB453, MDAMB453, MDA-453, MDA453, MD Anderson-Metastatic Breast-453

Cell Line Characteristics

**Age** 48 days

**Gender** Female

**Ethnicity** Caucasian

**Morphology** Epithelial

**Growth properties** Adherent

Cell Line Identification

**Citation** MDA-MB-453 (ATCC CCL-122) | Cytion 305042

**Biosafety level** 1

**NCBI\_TaxID** 9606

**CellosaurusAccession** CVCL\_0418

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Cell Line

**Receptors expressed** EGFR, HER2, IGF1R, PDGFR, VEGFR

**Tumorigenic** Yes

Media

**Culture Medium** DMEM:Ham's F12 (1:1), w: 3.1 g/L D-glucose, w: 2.5 mM L-glutamine, w: 15 mM HEPES, w: 0.5 mM beta-mercaptoethanol, w: 1.2 g/L NaHCO3 (820400a)

**Supplements** Insulin, Transferrin, Selenium 10% FBS

**Dissociation Reagent** Trypsin

**Subculturing** Seed cells into 25 cm<sup>2</sup> flasks (Corning) or 125 cm<sup>2</sup> flasks (Corning) in DMEM:Ham's F12 (1:1) supplemented with 10% FBS. Split ratio 1:3-5.

**Fluid renewal** 2-3 times per week

**Freeze medium** DMEM:Ham's F12 (1:1) supplemented with 10% FBS + 10% DMSO

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**Thawing and Culturing Cells**

1. Thaw the cells rapidly in a water bath at 37°C. Do not allow the cells to reach room temperature. Transfer the cells to a pre-warmed medium.
2. Seed the cells into a pre-warmed medium. Incubate the cells at 37°C in 5% CO<sub>2</sub> for 24 hours to allow the cells to attach.
3. After 24 hours, check the cells for attachment. If the cells have not attached, replace the medium with fresh pre-warmed medium.
4. Once the cells have attached, replace the medium with fresh pre-warmed medium. The medium should be replaced every 2-3 days.
5. The cells should be passaged when they reach 70-80% confluency. Use a trypsin-EDTA solution to detach the cells.
6. Seed the cells into a new pre-warmed medium. Incubate the cells at 37°C in 5% CO<sub>2</sub> for 24 hours to allow the cells to attach.
7. After 24 hours, check the cells for attachment. If the cells have not attached, replace the medium with fresh pre-warmed medium.
8. Once the cells have attached, replace the medium with fresh pre-warmed medium. The medium should be replaced every 2-3 days.

**Incubation Atmosphere** 37°C, 5% CO<sub>2</sub>, humidified

**Flask Coating** None

**Shipping Conditions** Cells should be shipped at 4°C. Do not freeze the cells. The cells should be shipped in a cool pack and should be received within 24 hours.

**Storage Conditions** Cells should be stored at -150°C in 196 liquid nitrogen. The cells should be stored in a cryovial and should be protected from light.

MDA-MB-453 / HLA

**Sterility** The cells are free of mycoplasmas and other contaminants. The cells are also free of endotoxins. The cells are tested for sterility using PCR and other methods.