# IM95m

305557

## GENERAL INFORMATION

### Description

The IM95m cell line is derived from a moderately differentiated gastric adenocarcinoma and has been notable for its capacity to produce significant amounts of cytokines, particularly hepatocyte growth factor (HGF), vascular endothelial growth factor (VEGF), and interleukin-8 (IL-8). This property positions IM95m as a valuable model for exploring tumor-angiogenesis interactions and mechanisms of cancer proliferation and metastasis. The cell line exhibits an epithelial morphology with tight intercellular connections and a calculated doubling time of approximately 25 hours. IM95m was originally established from a gastric cancer specimen and has shown the capability to form tumors in vivo, indicating its tumorigenic potential.

IM95m's ability to secrete high levels of HGF and VEGF is particularly relevant to studies on cancer progression, as these growth factors are key drivers of angiogenesis and tumor growth. The production of HGF is continuous and significant, which enhances the potential of IM95m to contribute insights into the behavior of HGF-driven cancer pathways. The secretion of these factors suggests a role for IM95m in the study of resistance mechanisms to targeted therapies, such as VEGFR inhibitors, where HGF-mediated signaling may play a role in diminishing treatment efficacy.

In addition to its production of angiogenesis-associated cytokines, IM95m has been evaluated for its response in experimental models involving tumor growth inhibition. Its expression profile supports investigations into therapeutic strategies that target both VEGF and HGF pathways simultaneously, an approach that could provide more comprehensive cancer treatment outcomes.

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| **Tissue** | Stomach |
| **Disease** | Gastric adenocarcinoma |

### Synonyms

- IM95M
- IM95 m
- IM-95m

## CLASSIFICATION

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| **Organism** | Human |
| **Sex** | Male |
| **Growth properties** | Adherent |
| **Biosafety level** | 1 |

## CHARACTERISTICS

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| **Morphology** | Epithelial-like |

## IDENTIFIERS

### Citation

IM95m (Cytion catalog number 305557)

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| **NCBI TaxID** | 9606 |
| **Cellosaurus** | CVCL_2962 |

## HANDLING AND CULTURE

### Culture medium

DMEM, w: 4.5 g/L Glucose, w: 4 mM L-Glutamine, w: 3.7 g/L NaHCO3, w: 1.0 mM Sodium pyruvate (Cytion article number 820300a)

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| **Incubation atmosphere** | 37°C, 5% $CO_2$, humidified atmosphere. |

### Supplements

Supplement the medium with 10% FBS

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| **Dissociation reagent** | Accutase |

### Subculturing

Remove the old medium from the adherent cells and wash them with PBS that lacks calcium and magnesium. For T25 flasks, use 3-5 ml of PBS, and for T75 flasks, use 5-10 ml. Then, cover the cells completely with TrypLE Express, using 1-2 ml for T25 flasks and 2.5 ml for T75 flasks. Let the cells incubate at room temperature for 8-10 minutes to detach them. After incubation, gently mix the cells with 10 ml of medium to resuspend them, then centrifuge at 300xg for 3 minutes. Discard the supernatant, resuspend the cells in fresh medium, and transfer them into new flasks that already contain fresh medium.

### Thawing and culturing

Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit. 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.
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.
Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening.
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.
Centrifuge the mixture at 300 x g for 3 minutes to separate the cells and carefully discard the supernatant containing residual freezing medium.
Gently resuspend the cell pellet in 10 ml of fresh culture medium. For adherent cells, divide the suspension between two T25 culture flasks; for suspension cultures, transfer all the medium into one T25 flask to promote effective cell interaction and growth.
Adhere to established subculture protocols for continued growth and maintenance of the cell line, ensuring reliable experimental outcomes.

## QUALITY CONTROL AND CRYOPRESERVATION

### Sterility

Mycoplasma contamination is excluded using both PCR-based assays and luminescence-based mycoplasma detection methods.
To ensure there is no bacterial, fungal, or yeast contamination, cell cultures are subjected to daily visual inspections.

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| **Freeze medium** | As a cryopreservation medium, we use complete growth medium (including FBS) + 10% DMSO for adequate post-thaw viability, or CM-1 (Cytion catalog number 800100), which includes optimized osmoprotectants and metabolic stabilizers to enhance recovery and reduce cryo-induced stress. |

### 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.

### 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.

## DONOR

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| **Donor age** | 63 years |
| **Ethnicity** | Japanese |

## LEGAL AND SAFETY

### Safety precautions

When planning to store a cryovial in liquid nitrogen for future thawing, it is mandatory to adhere to stringent safety measures. Appropriate protective gloves and clothing are essential, and the use of a face mask or safety goggles is required during the transfer of frozen samples to or from the liquid nitrogen tank. This is to mitigate the risk of injury from potential cryovial explosions upon removal, which can result in the projection of sharp fragments.

### Warranty

At Cytion, we stand behind the quality and viability of our products.
We guarantee that our cells will be viable at the start of culture for
60 days after shipment from our facilities.
We assure that all materials conform to the specifications described in the
Certificate of Analysis and/or Product Sheet.
For full details, please refer to our
Warranty Statement.

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| **Material Transfer Agreement required** | Yes |

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