Product sheet

IM95m Cells | 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.
Organism	Human
Tissue	Stomach
Disease	Gastric adenocarcinoma
Synonyms	IM95M, IM95 m, IM-95m

Characteristics

Age	63 years
Gender	Male
Ethnicity	Japanese
Morphology	Epithelial-like
Growth properties	Adherent

IM95m Cells | 305557

Regulatory Data

Citation	IM95m (Cytion catalog number 305557)
Biosafety level	1
NCBI_TaxID	9606
CellosaurusAccession	CVCL_2962

Biomolecular Data

Handling

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)
Supplements	Supplement the medium with 10% FBS
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.
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.

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 300 x g for 3 minutes to separate the cells and carefully discard the supernatant containing residual freezing medium. 7. 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. 8. Adhere to established subculture protocols for continued growth and maintenance of the cell line, ensuring reliable experimental outcomes.
Incubation Atmosphere	37°C, 5% CO_2, 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.
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

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.