Product sheet

HARA-B Cells | 300465

General information

Description	The HARA-B cell line is derived from human squamous cell carcinoma of the lung, specifically established from metastatic bone tissue in a mouse model. This cell line is a secondary development from the original HARA cell line and is characterized by its high expression of parathyroid hormone-related protein (PTHrP), which plays a significant role in the extensive bone metastasis observed in these cells. The HARA-B line has been instrumental in studying the mechanisms of bone metastasis associated with lung cancer. Scientific studies involving HARA-B often focus on its utility in modeling hypercalcemia, a common paraneoplastic syndrome associated with certain cancers, including lung cancer. The hypercalcemia in this model is induced by hypodermic transplantation of the cells, providing a valuable tool for understanding the interactions between cancer cells and bone cells, as well as the pathways that lead to bone degradation and calcium release. This cell line helps researchers investigate potential therapeutic strategies to mitigate bone metastasis and associated complications in lung cancer patients.
Organism	Human
Tissue	Lung
Disease	Lung squamous cell carcinoma
Metastatic site	Pleural effusion
Synonyms	HARAB

Characteristics

Age	57 years
Gender	Male
Ethnicity	Japanese
Growth properties	Adherent

Identifiers / Biosafety / Citation

Citation	HARA-B (Cytion catalog number 300465)

Expression / Mutation

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Protein expression	Produces high level of parathyroid hormone-related peptide (PTHrP).

Handling

Culture Medium	RPMI 1640, w: 2.1 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)
Medium supplements	Supplement the medium with 10% FBS
Passaging solution	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 Accutase, 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	CM-1 (Cytion catalog number 800100)

Handling of cryopreserved cultures

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.

Quality control / Genetic profile / HLA

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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STR profile

Amelogenin: x,y
CSF1PO: 13
D13S317: 9
D16S539: 10
D5S818: 12
D7S820: 12
TH01: 7
TPOX: 8,9
vWA: 16,17
D3S1358: 15
D21S11: 30
D18S51: 13
Penta E: 11
Penta D: 9
D8S1179: 10,12
FGA: 20
D6S1043: 11,14
D2S1338: 19,2
D12S391: 18,19
D19S433: 13