

UB-OC1 Cell Line

Catalogue number: 153622

Sub-type: Continuous

Images:

Contributor

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Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: UB-OC1 Cell Line

Alternate name: Organ of Corti cell line number 1; UB/OC-1

Class:

Conjugate:

Description: A conditionally immortal cell line derived from the mouse cochlea. The immortalizing gene was activated in organotypic cultures of auditory sensory epithelia at E13, the thirteenth day of embryonic development, before the hair cells had started to differentiate after their last mitoses. The cell line expresses characteristic hair cell markers including the transcription factor Brn3.1, the $\alpha 9$ subunit of the acetylcholine receptor, the stereociliary protein fimbrin and the myosins VI and VIIA. The relatively low expression of Brn3.1, the $\alpha 9$ AChR and myosin VIIa in UB/OC-1 compared with UB/OC-2 at 33°C suggests that the former may have been immortalized at an earlier stage of differentiation. UB/OC-1 probably originates from the nonsensory epithelial cell population in the GER and, when differentiated, closely resembles the hair cell phenotype. Thus it has considerable potential for studying the genetic processes underlying a potential mechanism for recruitment of replacement hair cells.

Purpose:

Parental cell: Primary cultures of the developing organs of Corti of E13 embryonic Immortomouse??

Organism: Mouse

Tissue: Developing organs of Corti

Model: Conditionally immortalised

Gender:

Isotype:

Reactivity:

Selectivity:

Host:

Immunogen:

Immunogen UNIPROT ID:

Sequence:

Growth properties:

Production details: Cells derived from C57/BL6 mice carrying a stable insertion of the conditional immortalising gene H-2Kb-tsA58, which describes a temperature-sensitive variant of the SV40 immortalising gene that encodes the large tumour antigen under the control of the Î²-interferon-sensitive MHC Class 1 promoter. The transgenic mouse is called the Immortomouse (Jat et al 1991 Proc. Nat. Acad. Sci. USA 88, 5096-5100)

Formulation:

Recommended controls:

Bacterial resistance:

Selectable markers:

Additional notes:

Target details

Target:

Target alternate names:

Target background:

Molecular weight:

Ic50:

Applications

Application: Inner ear development studies; Gene expression and functional studies of inner ear-specific genes; In vitro screening for gene activation and promoter analysis; Ototoxicity studies (prescribed drugs and agents that ameliorate their affects); Functional studies of inherited deafness mutations

Application notes:

Handling

Format: Frozen

Concentration:

Passage number:

Growth medium: MEM with 10% FCS, 50Units/ml Î³-IFN, L-glutamine

Temperature: 33° C

Atmosphere: 5% CO2

Volume: 1 ml

Storage medium: Pure Foetal Calf serum with 10% DMSO

Storage buffer:

Storage conditions:

Liquid Nitrogen

Shipping conditions: Dry ice

Related tools

Related tools:

References

References: Ourradi et al. 2017. PLoS One. 12(7):e0181334. PMID: 28715494. ; Development and validation of novel biomarker assays for osteoarthritis.

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