US/VOT-N33 Cell Line

Catalogue number: 153626
Sub-type: Continuous
Images:

Contributor

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Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: US/VOT-N33 Cell Line

Alternate name: US/VOT-N33; Ventral Otocyst-Neuroblast cell line number 33; University of Sheffield/Ventral OTocyst-Neuroblast 33; VOT-N33

Class:
Conjugate:
Description: US/VOT-N33 cells represent migrating neuroblasts. The conditionally immortal cell line was established from the ventral otocyst of the ImmortomouseTM at embryonic day 10.5 (plug in mouse designated E0.5 and birth at E18-19). At this stage the sensory epithelia have not differentiated, and the epithelium is competent to form most of the cells within the cochlear duct, including primary sensory neurons. US/VOT-N33 cell line has been characterised extensively by timed expression of inner ear neurons markers in conjunction with the transcription factor GATA3 under differentiating conditions in vitro. It has also been screened with Affymetrix mouse Micro-arrays. It forms exclusively bipolar neuronal phenotypes under differentiating conditions in vitro in the presence of FGFs and also following transplantation to the cochlear nerve in vivo
Purpose:
Parental cell:
Organism: Mouse
Tissue: Embryonic
Model: Transgenic
Gender:
Isotype:
Reactivity:
Selectivity:
Host:
Immunogen:
Immunogen UNIPROT ID:

Sequence:
Growth properties: Adherent
Production details: Homozygous male Immortomice (originally derived from injected oocytes of CBA/Ca x C57BL/10 mice) were time-mated with wild-type C57Bl/6 female mice to produce heterozygous offspring. Animals were killed by cervical dislocation, in accordance with UK Home Office regulations. Otocysts were removed from E10 embryos under sterile conditions and then dissected to isolate the ventral region. Further selection of ventral otocyst explants was based on expression of the immortalizing gene (condition...
Formulation:
Recommended controls:
Bacterial resistance:
Selectable markers:
Additional notes:

Target details

Target: GATA3 (GATA Binding Protein 3)

Target alternate names:

Target background: Zinc finger transcription factor

Molecular weight:

Ic50:

Applications

Application: Inner ear development studies; Gene expression and function of inner ear-specific genes studies; In vitro screening for gene activation and promoter analysis; Ototoxicity (prescribed drugs and agents that ameliorate their affects) studies; Studies on function of inherited deafness mutations; Functional analysis of ion channels, receptors and signalling pathways in vitro"
Application notes:

Handling

Format: Frozen
Concentration:
Passage number:
Growth medium: MEM with 10% FCS, 50Units/ml y-IFN, L-glutamine, 33??Â°C
Temperature: 33° C
Atmosphere:
Volume: 1 ml
Storage medium:
Storage buffer:

Storage conditions: Liquid Nitrogen
Shipping conditions: Dry ice

Related tools

Related tools: US/VOT-E36 Cell Line; GATA3eGFP reporter cell line; UB-UE1 Cell Line; UB-OC2 Cell Line; UB-OC1 Cell Line

References

References: Holley et al. 2007. Hear Res. 227(1-2):32-40. PMID: 16797894; Helyer et al. 2007. Eur J Neurosci. 25(4):957-73. PMID: 17331193; Liu et al. 2006. Otol Neurotol. 27(3):414-21. PMID: 16639283; Lawoko-Kerali et al. 2004. Dev Dyn. 231(4):801-14. PMID: 15499550