BMI-1 2 Cell Line

Catalogue number: 153582
Sub-type: Primary
Images:

Contributor

Inventor: Ian Sayers
Institute: University of Nottingham
Images:

Tool details

***FOR RESEARCH USE ONLY**

Name: BMI-1 2 Cell Line

Alternate name: Polycomb complex protein BMI-1, polycomb group RING finger protein 4; PCGF4; RING finger protein 51; RNF51; B cell-specific Moloney murine leukemia virus integration site 1; BMI-1; FLVI2/PCGF4; Mo-MLV; Moloney murine leukemia virus; NHBEC; Normal Human Bronchial Epithelial Cells; pLVX-BMI-1 Cell Line: COPD, ALI; airÄ?Ë???Â???Â?liquid interface

Class:
Conjugate:
Description: Primary Human bronchial epithelial cells when grown in vitro have a limited lifespan and begin to deviate both in phenotype and morphology, losing the plasticity required around passage 4 or 5, for air-liquid interface (ALI) differentiation. These Human bronchial epithelial cells expressing BMI-1 retain both viability and differentiation potential of wild-type human bronchial epithelium while importantly not demonstrating changes in cell karyotype.B lymphoma Moloney murine leukemia virus insertion region 1 homolog (BMI-1) is an oncogene which functions by regulating P16 and P19 cell cycle inhibitor genes and is also associated with erythroplakia and tongue cancer. BMI-1 is thought to repress, p16(Ink4a), a cyclin-dependent kinase inhibitor and tumor suppressor that induces cell cycle arrest at the Gap 1 phase. BMI-1 can therefore be used to delay cell senescence. The airway epithelium is a critical interface acting as a barrier to potential pathogens and extraneous particles, assisting in regulation of host defense mechanisms like the inflammatory response.
Purpose:
Parental cell:
Organism: Human
Tissue: Lung
Model: Extended Lifespan
Gender: Male
Isotype:
Reactivity:

Selectivity:
Host:
Immunogen:
Immunogen UNIPROT ID:
Sequence:
Growth properties:
Production details: Passage 2 heterogeneous cells were plated in a 6-well plate at 5 x 10 4 cells per well and grown overnight. Media was replaced with 800 ul of media with 2 ug/ml of polybrene and 6.25 uL of lentivirus pLVX-BmI-1 to give >90% transfection. The plates were incubated at 37Ä?Â???Â°C for 6.5 h with gentle rocking and the media replaced after 2 hours. After 72 h, selection media containing 300 ng/mL puromycin was added and cells with antibiotic resistance after 6 days of selection were considered to...
Formulation:
Recommended controls:
Bacterial resistance:
Selectable markers:
Additional notes: Cells were fixed for immunostaining, histology sectioning, and scanning electron microscopy after 28 days at ALI.

Target details

Target: BMI-1

Target alternate names:

Target background:

Molecular weight:

Ic50:

Applications

Application:
Application notes: Donor details: Male, 50 years old, Caucasian, smoker and consumed alcohol. Cells were fixed for immunostaining, histology sectioning, and scanning electron microscopy after 28 days at ALI.

Handling

Format: Frozen
Concentration:
Passage number:
Growth medium: Normal human bronchial epithelial cells were grown in a growth factor-supplemented medium and differentiated at ALI in bronchial epithelial differentiation medium.
Temperature:

Atmosphere:
Volume:
Storage medium:
Storage buffer:
Storage conditions:
Shipping conditions: Dry ice

Related tools

Related tools: BMI-1 5 Cell Line ; BMI-1 1 Cell Line ; BMI-1 4 Cell Line ; BMI-1 6 Cell Line ; BMI-1 3 Cell Line

References

References: Rezzonico et al. 2001. Blood. 97(10):2932-40. PMID: 11342414. ; Ligation of CD11b and CD11c beta(2) integrins by antibodies or soluble CD23 induces macrophage inflammatory protein 1alpha (MIP-1alpha) and MIP-1beta production in primary human monocytes through a pathway dependent on nuclear factor-kappaB. ; Baker et al. 1998. Blood. 92(8):2830-43. PMID: 9763568. ; Prolonged phenotypic, Fn, and molecular change in group I Burkitt lymphoma cells on short-term exposure to CD40 ligand.