

## Cell Line Designation: BEAS-2B cells

## AddexBio Catalog No. T0007001

### Cell Line Description:

**Origin:** Normal epithelium, isolated from normal human bronchial epithelium obtained from autopsy of non-cancerous individuals.

**Species:** Homo sapiens

**Tissue:** Lung/bronchus

**Properties:** Adherent

**Morphology:** Epithelial (virus transformed)

**Patient:** Non-cancerous individuals

**Complete Medium:** BEAS-2B cells Growth Medium (C0013-56) (All-in-one, ready to use complete medium optimized for BEAS-2B cell growth).

**Subculture Procedure:** Subculture before reaching confluence using 2-3 mL S2 described below, and incubate at 5% CO<sub>2</sub>; 37°C incubator for 5-7 min. Resuspend in complete medium.

**Medium Renewal:** Two to three times weekly.

**Freezing Medium:** Complete culture medium supplemented with 20% FBS and with 7.5% (v/v) DMSO. Store at liquid nitrogen vapor phase.

**Additional Information:** Additional product and technical information can be obtained from the catalog references and the Addexbio Technical Information site at [www.addexbio.com](http://www.addexbio.com), or by email at [customersupport@addexbio.com](mailto:customersupport@addexbio.com).

**Biosafety Level: 2**

Appropriate safety procedures should always be used with this material. Laboratory safety is discussed in the following publication: Biosafety in Microbiological and Biomedical Laboratories, 5th ed. HHS Publication No. (CDC) 93-8395. U.S. Department of Health and Human Services, Centers for Disease Control and Prevention. Washington DC: U.S. Government Printing Office; 2007. The entire text is also available online at [www.cdc.gov/od/ohs/biosafety/bmbl4/bmbl4toc.htm](http://www.cdc.gov/od/ohs/biosafety/bmbl4/bmbl4toc.htm)

**Use Restrictions:** These cells are distributed for research purposes only. Addexbio does not recommend third party distribution of this cell line, as this practice has resulted in the unintentional spreading of contaminated cell lines.

## Handling Procedure for Frozen Cells:

To insure the highest level of viability, thaw the vial and initiate the culture as soon as possible upon receipt. If upon arrival, continued storage of the frozen culture is necessary, it should be stored in liquid nitrogen vapor phase and not at  $-70^{\circ}\text{C}$ . Storage at  $-70^{\circ}\text{C}$  will result in loss of viability.

## Handling Cells Upon Arrival:

Frozen cells must be thawed immediately upon receipt and grown according to the handling procedures described here in this instruction manual to ensure the best cell viability.

*Note: Avoid refreezing or repetitive freezing cells upon receipt as it may result in irreversible damage to the cell line.*

*Disclaimer: We cannot guarantee cell viability if the cells are not thawed immediately upon receipt and grown according to handling procedures described in this instruction manual.*

## Safety Precaution:

Addexbio highly recommends that protective gloves and clothing always be used and a full face mask always be worn when handling frozen vials. It is important to note that some vials leak when submerged in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vessel exploding or blowing off its cap with dangerous force creating flying debris.

1. Twenty four hours before thawing the cells, a culturing flask has to be pre-coated with S1 described under media and solutions. For growth area of  $75\text{ cm}^2$ , add 5 mL of the S1 and rock gently to allow complete coverage of the flask surface.
2. Incubate the freshly coated vessel(s) in a  $37^{\circ}\text{C}$  incubator overnight (it is preferable to use tissue culture vessels with tightened, plug-seal caps to prevent evaporation during the coating process). [If extra flasks are coated, store coated flasks with S1 at room temperature, light protected, up to 1 month. Suction off solution before plating cells.]

3. Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the O-ring and cap out of water. Thawing should be rapid (approximately 2 minutes).
4. Remove the vial from the water bath as soon as the contents are thawed, and decontaminate by dipping in or spraying with 70% ethanol. All of the operations from this point on should be carried out under strict aseptic conditions.
5. Transfer the vial contents to the centrifuge tube containing 9.0 mL complete culture medium and spin at approximately 125xg for 5 to 7 minutes. (Optional if one wants to completely remove DMSO)
4. Resuspend cell pellet with the recommended complete medium and dispense into a new culture flask. It is important to avoid excessive alkalinity of the medium during recovery of the cells. It is suggested that, prior to the addition of the vial contents, the culture vessel containing the complete growth medium be placed into the incubator for at least 15 minutes to allow the medium to reach its normal pH (7.0-7.6).
5. One may also transfer the vial contents into a new culture flask if removal of DMSO is not important. It is suggested that, prior to the addition of the vial contents, the culture vessel containing the complete growth medium be placed into the incubator for at least 15 minutes to allow the medium to reach its normal pH (7.0-7.6).
6. Incubate the culture at 37°C in a suitable incubator for 24-48 hours for cell attachment. A 5% CO<sub>2</sub> in air atmosphere is recommended.

## Media and Solutions:

S1: A mixture of the followings dissolved in culture medium:

0.01 mg/mL fibronectin

0.03 mg/mL bovine collagen type 1

0.01 mg/mL bovine serum albumin BSA

Store prepared S1 at 4°C in refrigerator for up to 3 months

S2: 0.25% Trypsin-0.53mM EDTA solution containing 0.5% polyvinylpyrrolidone (PVP)

S3: Complete growth medium supplemented with 1% PVP and 7.5% DMSO

All reagents must be sterilized by filtering with a 0.22 µm filter before use with the cells.

## References for BEAS-2B cells:

1. Sakamoto O, et al. Role of macrophage-stimulating protein and its receptor, RON tyrosine kinase, in ciliary motility. J. Clin. Invest. 99: 701-709, 1997.



## Lot Specific Information Sheet for AddexBio Cat #: T0007001

Lot Number: 0128997

Designation: BEAS-2B CELLS

Total Cells/mL:  $>1.1 \times 10^6$

Expected Viability: 70.0-75.1%

Ampule Passage #: 26

Dilute Ampule Content: 1:10 (T-25) or 1:15 (T-75)

Volume/Ampule: 1 mL

Seed at a cell density of  $3 \times 10^3$  viable cells/cm<sup>2</sup>, using culture medium as described in the product information sheet, reaches approximately 60-70% confluence within 4-5 days.