

Product datasheet

Human LRP2 knockout Caco 2 cell line ab277844

Overview

Product name	Human LRP2 knockout Caco 2 cell line
Parental Cell Line	Caco 2
Organism	Human
Passage number	<20
Biosafety level	1
General notes	<p>Recommended control: Human wild-type Caco 2 cell line (ab275464). Please note a wild-type cell line is not automatically included with a knockout cell line order, if required please add recommended wild-type cell line at no additional cost using the code WILDTYPE-TMTK1.</p> <p>Cryopreservation cell medium: Cell Freezing Medium-DMSO Serum free media, contains 8.7% DMSO in MEM supplemented with methyl cellulose.</p> <p>Culture medium: EMEM + 20% FBS</p> <p>Initial handling guidelines: Upon arrival, the vial should be stored in liquid nitrogen vapor phase and not at -80°C. Storage at -80°C may result in loss of viability.</p> <ol style="list-style-type: none"> 1. Thaw the vial in 37°C water bath approximately 1-2 minutes. 2. Transfer the cell suspension (0.8 ml) to a 15 ml/50 ml conical sterile polypropylene centrifuge tube containing 8.4 ml pre-warmed culture medium, wash vial with an additional 0.8 ml culture medium (total volume 10 ml) to collect remaining cells, and centrifuge at 201 x g (rcf) for 5 minutes at room temperature. 10 ml represents minimum recommended dilution. 20 ml represents maximum recommended dilution. 3. Resuspend the cell pellet in 5 ml pre-warmed culture medium and count using a haemocytometer (Click here to view haemocytometer protocol) or alternative cell counting method. Based on cell count, seed cells in an appropriate cell culture flask at a density of 2×10^4 cells/cm². This should allow for confluency within 48 hours. Seeding density is given as a guide only and should be scaled to align with individual lab schedules. 4. Incubate the culture at 37°C incubator with 5% CO₂. Cultures should be monitored daily. <p>Subculture guidelines:</p> <p>All seeding densities should be based on cell counts gained by established methods. A guide seeding density of 2×10^4 cells/cm² is recommended for confluency (80-90% confluence) within 48 hours.</p> <p>A partial media change 24 hours prior to subculture may be helpful to encourage growth, if required.</p> <p>Cells should be passaged when they have achieved 80-90% confluence.</p> <p>Click here to view the Mammalian cell tissue culture protocol</p>

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Properties

Number of cells	1 x 10 ⁶ cells/vial, 1 mL
Viability	~90%
Adherent /Suspension	Adherent
Tissue	Colon
Cell type	epithelial
Disease	Adenocarcinoma
Gender	Male
Mycoplasma free	Yes
Storage instructions	Shipped on Dry Ice. Store in liquid nitrogen.
Storage buffer	Constituents: 8.7% DMSO, 2% Cellulose, methyl ether

Target

Function	Acts together with cubilin to mediate HDL endocytosis (By similarity). May participate in regulation of parathyroid-hormone and para-thyroid-hormone-related protein release.
Tissue specificity	Absorptive epithelia, including renal proximal tubules.
Involvement in disease	Defects in LRP2 are the cause of Donnai-Barrow syndrome (DBS) [MIM:222448]; also known as faciooculoacousticorenal syndrome (FOAR syndrome). DBS is a rare autosomal recessive disorder characterized by major malformations including agenesis of the corpus callosum, congenital diaphragmatic hernia, facial dysmorphism, ocular anomalies, sensorineural hearing loss and developmental delay. The FOAR syndrome was first described as comprising facial anomalies, ocular anomalies, sensorineural hearing loss, and proteinuria. DBS and FOAR were first described as distinct disorders but the classic distinguishing features between the 2 disorders were presence of proteinuria and absence of diaphragmatic hernia and corpus callosum anomalies in FOAR. Early reports noted that the 2 disorders shared many phenotypic features and may be identical. Although there is variability in the expression of some features (e.g. agenesis of the corpus callosum and proteinuria), DBS and FOAR are now considered to represent the same entity.
Sequence similarities	Belongs to the LDLR family. Contains 17 EGF-like domains. Contains 36 LDL-receptor class A domains. Contains 37 LDL-receptor class B repeats.
Cellular localization	Membrane. Membrane > coated pit.

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