



SZABO SCANDIC

Part of Europa Biosite

Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

Weitere Information auf den folgenden Seiten!
See the following pages for more information!



Lieferung & Zahlungsart

siehe unsere [Liefer- und Versandbedingungen](#)

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

SZABO-SCANDIC HandelsgmbH

Quellenstraße 110, A-1100 Wien

T. +43(0)1 489 3961-0

F. +43(0)1 489 3961-7

mail@szabo-scandic.com

www.szabo-scandic.com

[linkedin.com/company/szaboscandic](https://www.linkedin.com/company/szaboscandic) 

Description

CDH6 HEK293 Cell Line is a HEK293 stable cell line constitutively expressing human CDH6 (Cadherin-6/K-cadherin) protein (BC000019.2). This cell line was generated by lipid mediated transfection, followed by hygromycin selection, and limiting dilution. Individual clones were screened for CDH6 expression levels by flow cytometry and a high-level CDH6 expression clone was selected to generate this cell line.

Background

Cadherin-6/K-cadherin (CDH6) belongs to the cadherin superfamily of cell adhesion molecules and is a single pass type 1 transmembrane protein. During development, CDH6 plays a role in neural crest morphogenesis and is important for central nervous system and kidney specification. CDH6 is expressed at high levels in tumor cells of diverse origin including, thyroid, gastric, ovarian, and oral squamous cell cancer. CDH6 and other cadherin family members are promising immunotherapy targets for ADC (antibody drug conjugate) and CAR-T therapies due to their role at many stages of cancer progression including tumor initiation, growth, and metastasis.

Application

- Screen therapeutic antibodies and ADCs (antibody-drug conjugates) targeting CDH6.
- Co-culture assays to screen CDH6 targeting CAR cells.

Materials Provided

Components	Format
2 vials of frozen cells	Each vial contains $>1 \times 10^6$ cells in 1 ml of Cell Freezing Medium (BPS Bioscience #79796)

Parental Cell Line

HEK293, Human Embryonic Kidney, epithelial-like cells, adherent

Mycoplasma Testing

The cell line has been screened to confirm the absence of Mycoplasma species.

Materials Required but Not Supplied

These materials are not supplied with the cell line but are necessary for cell culture and cellular assays. BPS Bioscience's reagents are validated and optimized for use with this cell line and are highly recommended for best results. Media components are provided in the Media Formulations section below.

Media Required for Cell Culture

Name	Ordering Information
Thaw Medium 1	BPS Bioscience #60187
Growth Medium 1F	BPS Bioscience #79540
ONE-Step™ Luciferase Assay System	BPS Bioscience #60690
Luminometer	

Storage Conditions

Cells are shipped in dry ice and should immediately be thawed or stored in liquid nitrogen upon receipt. Do not use a -80°C freezer for long term storage. Contact technical support at support@bpsbioscience.com if the cells are not frozen in dry ice upon arrival.

Media Formulations

For best results, the use of validated and optimized media from BPS Bioscience is *highly recommended*. Other preparations or formulations of media may result in suboptimal performance.



Note: Thaw Media do *not* contain selective antibiotics. However, Growth Media *do* contain selective antibiotics, which are used to maintain selective pressure on the cell population expressing the gene of interest. Cells should be grown at 37°C with 5% CO₂. BPS Bioscience's cell lines are stable for at least 10 passages when grown under proper conditions.

Media Required for Cell Culture

Thaw Medium 1 (BPS Bioscience #60187):

MEM medium supplemented with 10% FBS, 1% non-essential amino acids, 1 mM Na pyruvate, 1% Penicillin/Streptomycin.

Growth Medium 1F (BPS Bioscience #79540):

MEM medium supplemented with 10% FBS, 1% non-essential amino acids, 1 mM Na pyruvate, 1% Penicillin/Streptomycin plus 100 µg/ml of Hygromycin B.

Cell Culture Protocol

Cell Thawing

1. Swirl the vial of frozen cells for approximately 60 seconds in a 37°C water bath. As soon as the cells are thawed (it may be slightly faster or slower than 60 seconds), quickly transfer the entire contents of the vial to a tube containing 10 ml of pre-warmed Thaw Medium 1.

Leaving the cells in the water bath at 37°C for too long will result in rapid loss of viability.

2. Immediately spin down the cells at 300 x g for 5 minutes, remove the medium and resuspend the cells in 5 ml of pre-warmed Thaw Medium 1.
3. Transfer the resuspended cells to a T25 flask or T75 flask and incubate at 37°C in a 5% CO₂ incubator.
4. After 24 hours of culture, check for cell attachment and viability. Change medium to fresh Thaw Medium 1 and continue growing in a 5% CO₂ incubator at 37°C until the cells are ready to passage.
5. Cells should be passaged before they are fully confluent. At first passage and subsequent passages, use Growth Medium 1F.

Cell Passage

1. Aspirate the medium, wash the cells with Phosphate Buffered Saline (PBS) without Ca²⁺/Mg²⁺, and detach the cells from the culture vessel with 0.05% Trypsin/EDTA.
2. Once the cells have detached, add Growth Medium 1F and transfer to a tube.
3. Spin down cells at 300 x g for 5 minutes, remove the medium and resuspend the cells in Growth Medium 1F.

- Seed into new culture vessels at the recommended sub-cultivation ratio of 1:6 to 1:8 once or twice per week.

Cell Freezing

- Aspirate the medium, wash the cells with PBS without $\text{Ca}^{2+}/\text{Mg}^{2+}$, and detach the cells from the culture vessel with 0.05% Trypsin/EDTA.
- Once the cells have detached, add Growth Medium 1F and count the cells.
- Spin down the cells at $300 \times g$ for 5 minutes, remove the medium and resuspend the cells in 4°C Cell Freezing Medium (BPS Bioscience #79796) at $\sim 2 \times 10^6$ cells/ml.
- Dispense 1 ml of cell suspension into each cryogenic vial. Place the vials in an insulated container for slow cooling and store at -80°C overnight.
- Transfer the vials to liquid nitrogen the next day for storage.



Note: It is recommended to expand the cells and freeze at least 10 vials at an early passage for future use.

A. Validation Data

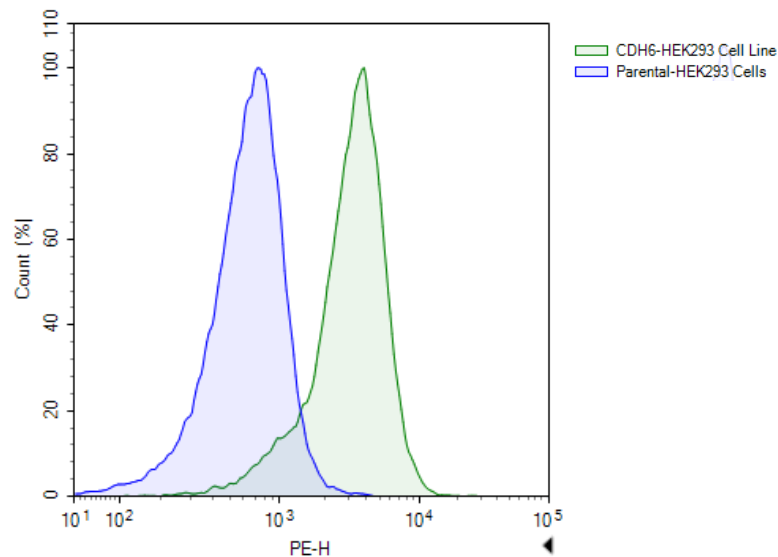


Figure 1: Expression of CDH6 in CDH6 HEK293 Cell Line.

Control parental HEK293 cells (blue) or CDH6 HEK293 cells (green) were stained with Human Cadherin-6/KCAD PE-conjugated Antibody (R&D Systems #FAB2715P) and analyzed by flow cytometry. Y-axis is the % cell number. X-axis is the intensity of PE.

Sequence

Human CDH6 sequence (accession number BC000019.2)

MRTYRYFLLLFVWGQPYPTLSTPLSKRTSGFPAKKRALELSGNSKNELNRSKRSMWNQFFLLEEYTGSDYQYVVGKLSHQDRG
 DGSLKYILSGDGAGDLFIINENTGDIQATKRLDREEKPVYILRAQAINRRTGRPVEPESEFIIKIHDINDNEPIFTKEVYTATVPEMSDV
 GTFVVQVTATDADDPTYGNSAKVVYSILQGQPYFSVESETGIIKTALLNMDRENREYQVVIQAKDMGGQMGGLSGTTVNITL
 TDVNDNPPRFQSTYQFKTPESPPTPIGRIKASDADVGENAEIEYSITDGEGLDMFDVITDQETQEGIIIVKLLDFEKKKVYTLK
 VEASNPYVEPRFLYLGPFKDSATVRIVVEDVDEPPVFSKLAYILQIREDAQINTTIGSVTAQDPDAARNPVKYSVDRHTDMDRIFNI
 DSGNGSIFTSKLLDRELLWHNITVIATEINNPQSSRVPLYIKVLDVNDNAPEFAEFYETVCEKAKADQLIQLTHAVDKDDPYSG
 HQFSFLAPEAASGSNFTIQDNKDNTAGILTRKNGYNRHEMSTYLLPVVISDNDYPVQSSTGTVTVRVCACDHHGNMQSCHAE
 ALIHPTGLSTGALVAILLCIVILLGKLVLPASYLPMVVRGSHCYCDTLDLSASPIKAYSLI*

References

Bartolomé R., *et al.*, 2021 *Molecular Oncology*. 15: 1849–1865.
 Casal J., *et al.*, 2019 *Int. J. Mol. Sci.* 20(13), 3373.
 Pang L., *et al.*, 2022 *J Environ Pathol Toxicol Oncol.* 41(1): 55-71.
 Punovuori K., *et al.*, 2021 *Cell Mol Life Sci.* 78(9): 4435-4450.
 Suzuki H., *et al.*, 2024 *Mol Cancer Ther.* 23 (3): 257–271.
 Zhao Z., *et al.*, 2021 *Cancer Cell Int.* 21: 493.

License Disclosure

Visit bpsbioscience.com/license for the label license and other key information about this product.

Troubleshooting Guide

Visit bpsbioscience.com/cell-line-faq for detailed troubleshooting instructions. For all further questions, please email support@bpsbioscience.com.

Related Products

<i>Products</i>	<i>Catalog #</i>	<i>Size</i>
CEACAM6 CHO Cell Line	78550	2 vials
CEACAM5 CHO Cell Line	78704	2 vials
Nectin4 – CHO K1 Recombinant Cell Line	78097	2 vials
Ret, GST-Tag Recombinant	40267	10 µg
Chemi-Verse™ RET Kinase Assay Kit	82575	96 reactions

Version 062824