

Description

Recombinant human Nectin4-CHO K1 cell line stably expressing a full length human Nectin4/PVRL4 receptor (GenBank Accession: NM_030916.2). Surface expression of hNectin4 was confirmed by flow cytometry. Each stable clonal cell line was selected for different levels of hNectin4 expression (High, Medium, Low) to mimic different stages of cancer target cells with various Nectin4 expression levels.

Background

In contrast to other Nectins, which are found extensively in adult tissues, Nectin4 is abundant during fetal development but declines in adult life. Its expression, however, returns specifically in lung, breast, pancreas and ovarian cancers. It was shown that Nectin4 can modulate the expression of epithelial–mesenchymal transition-related proteins via the PI3K/AKT pathway. In addition, the recent study demonstrated that Nectin4 is a cancer-specific TIGIT ligand and its expression is also associated with poor prognostic features, suggesting it could be an efficient target for cancer immunotherapy.

Application

Screen for inhibitors of Nectin4 signaling for immunotherapy research and drug discovery.

Materials Provided

Components	Format
2 vials of frozen cells	2 x 10 ⁶ cells in 1 ml of 90% FBS, 10% DMSO

Host Cell

CHO-K1

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 this cell line but are necessary for cell culture and cellular assays. BPS Bioscience reagents systems 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.

Materials Required for Cell Culture

Name	Ordering Information
Thaw Medium 3	BPS Bioscience #60186
Growth Medium 3B	BPS Bioscience #79529

Storage Conditions

Cells will arrive upon 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, it is *highly recommended* to use these validated and optimized media from BPS Bioscience. To formulate a comparable but not BPS-validated media, formulation components can be found below.



Note: Thaw Media does *not* contain selective antibiotics. However, Growth Media *does* contain selective antibiotics, which are used for maintaining cell lines over many passages. Cells should be grown at 37 °C with 5% CO₂. BPS Bioscience cell lines are stable for at least 15 passages when grown under proper conditions.

Media Required for Cell Culture

Thaw Medium 3 (BPS Bioscience, #60186):

Ham’s F-12 medium (Hyclone, #SH30526.01) supplemented with 10% FBS (Thermo Fisher, #26140079), 1% Penicillin/Streptomycin (Hyclone, #SV30010.01)

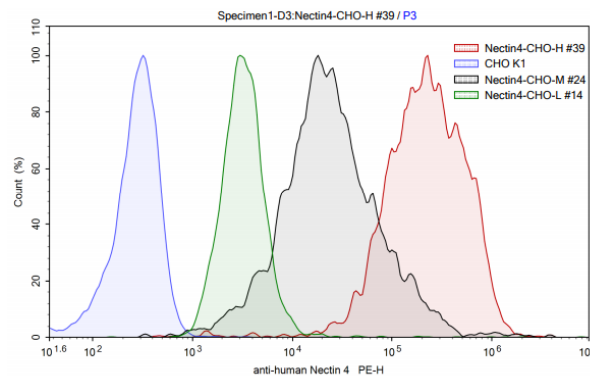
Growth Medium 3B (BPS Bioscience, #79529):

Thaw Medium 3 (BPS Bioscience, #60186) plus 500 µg/ml of Hygromycin B (Thermo Fisher, #10687010).

Validation

Cell surface expression of human Nectin4 in CHO K1 cells was confirmed by flow cytometry.

Figure 1. Flow cytometry analysis of cell surface expression of hNectin4 in CHO K1 cells. hNectin4-CHO K1 cells or control CHO K1 cells were stained with PE-labeled anti-human hNectin4 antibody (R+D Systems, #FAB2659P) and analyzed by FACS. Y-axis is the % cell number. X-axis is the intensity of PE.



Sequence

Human Nectin4 sequence (accession number: NM_030916.2)

MPLSLGAEMWGPEAWLLLLLLASFTGRCPAGELETSVVTVVLGQDAKLPFCYRGDSGEQVGVQVAWARVDAGEGAQELALLHSKYGLHVS
 PAYEGRVEQPPPPRNPLDGSVLLRNAVQADEGEYECRVSTFPAGSFQARLRLRVLPPLSLNPGPALEEGQGLTLAASCTAEGSPAPSVTWDT
 EVKGTSSRSFKHSRSAAVTSEFHLVPSRSMNGQPLTCVVSHPGLLQDQRITHILHVSFLAEASVRGLEDQNLWHIGREGAMLKCLSEGQPPPS
 YNWTRLDGPLPSGVRVDGDTLGFPLTTEHSGIYVCHVSNEFSSRDSQVTVDVLPQEDSGKQVDLVSASVVVGVIAALLFCLLVVVVLMMS
 RYHRRKAQQMTQKYEELTLTRENIRRLHSHHTDPRSQPEESVGLRAEGHPDSLKDNSSCSVMSEPEGRSYSTLTTVREIETQTELLSPGSGR
 AEEEEEDQDEGIKQAMNHFVQENGLRAKPTGNGIYINGRHLV

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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>
Nectin4, His-Avi-Tag HiP™	100674-1	100 µg
Nectin4, His-Avi-Tag, Biotin-labeled	100675-1	50 µg
CD111, Fc-Fusion, Avi-Tag (Nectin1)	77001	100 µg
CD112, His-tag (Human) HiP™(Nectin2)	71197	100 µg
CD113, Fc-Fusion, Avi-Tag (Nectin3)	72510	100 µg
CD155, Fc-Avi-Tag (Nectin5)	79063	100 µg
CD155 (Nectin5)/ TCR Activator - CHO Cell line	60548	2 vials