



6042 Cornerstone Court W, Ste B
San Diego, CA 92121
Tel: 1.858.202.1401
Fax: 1.858.481.8694
Email: info@bpsbioscience.com

Data Sheet

CD33– CHO K1 Recombinant Cell Line (Medium Expression)

Catalog # 79935-M

Background

CD33 or Siglec-3 is a transmembrane receptor expressed on cells of myeloid lineage that belongs to the sialic acid-binding immunoglobulin (Ig)-like family. CD33 can be stimulated by sialic acid residues on glycoproteins or glycolipids, resulting in a signaling cascade that inhibits phagocytosis in cells and suppresses immune cell proliferation. CD33 overexpression is one of top-ranked risk factors for Alzheimer's disease, and CD33 is the target of Gemtuzumab ozogamicin, an antibody- chemo drug conjugate for the treatment of patients with acute myeloid leukemia.

Description

Recombinant CD33-CHO K1 cell line stably expressing the full length human C33/Siglec-3 receptor (GenBank Accession: BC028152.1). Surface expression of CD33 was confirmed by flow cytometry. Each stable clonal cell line was selected for medium level of CD33 expression to mimic different stages of cancer target cells with medium CD33 expression levels.

Application

- Screen for activators or inhibitors of antibody-mediated signaling for immunotherapy research and drug discovery.
- Characterize CD33 antibodies and ligands for binding assay.

Format

Each vial contains ~ 2 x 10⁶ cells in 1 ml of 10% DMSO in FBS.

Storage

Store in liquid nitrogen immediately upon receipt.

Culture Medium

Thaw Medium 3: (BPS Bioscience #60186): Ham's F-12 medium (Hyclone #SH30526.01) supplemented with 10% FBS (Life technologies #26140-079), 1% Penicillin/Streptomycin (Hyclone #SV30010.01).

Growth Medium 3B (BPS Bioscience #79529): Thaw Medium 3 (BPS Bioscience #60186) plus 500 µg/ml Hygromycin B (Invitrogen #10687010)

OUR PRODUCTS ARE FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

To place your order, please contact us by Phone **1.858.202.1401** Fax **1.858.481.8694**

Or you can Email us at: info@bpsbioscience.com

Please visit our website at: www.bpsbioscience.com



6042 Cornerstone Court W, Ste B
San Diego, CA 92121
Tel: 1.858.202.1401
Fax: 1.858.481.8694
Email: info@bpsbioscience.com

Recommended Culture conditions

Frozen Cells: Prepare T-75 culture flask with 20 ml of pre-warmed Thaw medium 3. Quickly thaw cells in a 37°C water bath with constant and slow agitation. After cleaning the outside of the vial with 70% ethanol, immediately transfer the entire content to Thaw Medium 3 (no Hygromycin). Avoid pipetting up and down, and gently rock the flask to distribute the cells. Incubate the cells in a humidified 37°C incubator with 5% CO₂. The next day, change to fresh Thaw Medium 3 without disturbing the attached cells. Continue to incubate until cells reach desired confluency. If slow cell growth occurs during resuscitation, increase FBS to 15% for the first week of culture.

Subculture: When cells reach 90% confluency, remove the medium and wash twice with PBS (without Magnesium or Calcium). Treat cells with 2 ml of 0.25% trypsin/EDTA and incubate for 3 minutes at 37°C. After confirming cell detachment by light microscopy, add 10 ml of prewarmed medium and gently pipette up and down to dissociate cell clumps. Transfer cells to a 15 ml conical tube and centrifuge at 200 x g for 5 minutes. Remove the medium and resuspend cells in 10 ml pre-warmed growth medium. Dispense 1 ml of the cell suspension into a new T75 flask containing pre-warmed 19 ml complete medium (a subcultivation ratio of 1:10 to 1:20 is recommended). Incubate cells in a humidified 37°C incubator with 5% CO₂. To freeze cells, resuspend cell pellet in freezing medium (10% DMSO in FBS).

Mycoplasma Testing

This cell line has been screened using the MycoAlert™ Mycoplasma Detection Kit (Lonza, #LT07-118) to confirm the absence of Mycoplasma contamination. MycoAlert Assay Control Set (Lonza, #LT07-518) was used as a positive control.

Validation

Cell surface expression of human CD33 in CHO K1 cells was confirmed by flow cytometry.

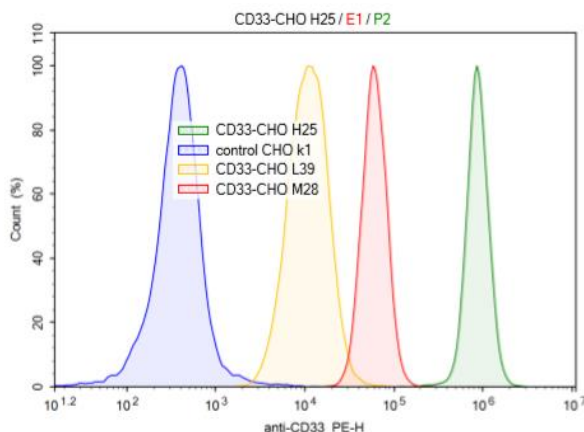
OUR PRODUCTS ARE FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

To place your order, please contact us by Phone **1.858.202.1401** Fax **1.858.481.8694**

Or you can Email us at: info@bpsbioscience.com

Please visit our website at: www.bpsbioscience.com

Figure 1. Flow cytometry analysis of cell surface expression of CD33 in CHO K1 cells. CD33-CHO K1 cells or control CHO K1 cells were stained with PE-labeled anti-human CD33 antibody (Biolegend #366607) and analyzed by FACS. Y-axis is the % cell number. X-axis is the intensity of PE.



Vector and Sequence

Human CD33/Siglec-3 (accession number: BC028152.1) was cloned into pCMV3 vector.

```
MPLLLLLLPLLWAGALAMDPNFWLQVQESVTVQEGLCVLPCTFFHPIPIYYDKNSPVHGYWVFREGAIIISGD
SPVATNKLDQEVQEETQGRFRLLDGPNRNNCSLSIVDARRRDNNGSYFFRMERGSTKYKSPQLSVHVT
DLTHRPKILIPGTLEPGHSKNLTCSVSWACEQGTPIFSWLSAAPTSLGPRTTTHSSVLIITPRPQDHGTNLT
CQVKFAGAGVTTERTIQLNVTYVPQNPTTGIFPGDGSQKQETRAGVVHGAIGGAGVTALLALCLCLIFFIV
KTHRRKAARTAVGRNDTHPTTGSASPKHQKSKLHGPTETSSCSGAAPTVEDEELHYASLNFGMNP
SKDTSTEYSEVRTQ
```

License Disclosure: Purchase of this cell line grants you with a 10-year license to use this cell line in your immediate laboratory, for research use only. This license does not permit you to share, distribute, sell, sublicense, or otherwise make the cell line available for use to other laboratories, departments, research institutions, hospitals, universities, or biotech companies. The license does not permit use of this cell line in humans or for therapeutic or drug use. The license does not permit modification of the cell line in any way. Inappropriate use or distribution of this cell line will result in revocation of the license and result in an immediate cease of sales and distribution of BPS products to your laboratory. BPS does not warrant the suitability of the cell line for any particular use and does not accept any liability in connection with the handling or use of the cell line. Modifications of this cell line, transfer to another facility, or commercial use of the cells may require a separate license and additional fees; contact sales@bpsbioscience.com for details. Publications using this cell line should reference BPS Bioscience, Inc., San Diego.

OUR PRODUCTS ARE FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

To place your order, please contact us by Phone **1.858.202.1401** Fax **1.858.481.8694**

Or you can Email us at: info@bpsbioscience.com

Please visit our website at: www.bpsbioscience.com



6042 Cornerstone Court W, Ste B
San Diego, CA 92121
Tel: 1.858.202.1401
Fax: 1.858.481.8694
Email: info@bpsbioscience.com

Related Product

<u>Related Product</u>	<u>Cat. #</u>	<u>Size</u>
Thaw Medium 3	60186	500ml
Growth Medium 3B	79529	500ml
CD33-CHO Recombinant Cell Line (Medium Expression)	79935-M	2 vials
CD33-CHO Recombinant Cell Line (Low Expression)	79935-L	2 vials
CD33-CHO Recombinant Cell Line (High Expression)	79935-H	2 vials
CD22-CHO Recombinant Cell Line (Medium Expression)	79557-M	2 vials
CD22-CHO Recombinant Cell Line (Low Expression)	79557-L	2 vials
CD22-CHO Recombinant Cell Line (High Expression)	79557-H	2 vials

OUR PRODUCTS ARE FOR RESEARCH USE ONLY. NOT FOR DIAGNOSTIC OR THERAPEUTIC USE.

To place your order, please contact us by Phone **1.858.202.1401** Fax **1.858.481.8694**

Or you can Email us at: [**info@bpsbioscience.com**](mailto:info@bpsbioscience.com)

Please visit our website at: [**www.bpsbioscience.com**](http://www.bpsbioscience.com)