6405 Mira Mesa Blvd, Ste 100
San Diego, CA 92121
Tel: 1.858.202.1401
Fax: 1.858.481.8694
Email: support@bpsbioscience.com

Data Sheet

BAFF-R – CHO K1 Recombinant Cell Line

Medium Expression

Catalog # 79921-M

Background

BAFF Receptor (B-cell activating factor receptor, BAFF-R) is an essential factor for B cell maturation and survival. In humans it is encoded by the TNFRSF13C gene. BAFF-R function is impressively documented in humans by a homozygous deletion, which leads to an almost complete block of B cell development at the stage of immature/transitional B cells. The resulting immunodeficiency is characterized by B-lymphopenia, agammaglobulinemia, and impaired humoral immune responses.

Description

Recombinant human BAFF-R-CHO K1 cell line stably expressing full length human BAFF-R/TNFRSF13C receptor (GenBank Accession: NM_052945.3). Surface expression of BAFF-R was confirmed by flow cytometry. Each stable clonal cell line was selected for different levels of BAFF-R expression (High, Medium, Low) to mimic different stages of cancer target cells with various BAFF-R expression levels.

Application

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

Format

Each vial contains ~ 2 x 10^6 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): F-12K Medium supplemented with 10% FBS, 1% Penicillin/Streptomycin

Growth Medium 3B (BPS Bioscience, #79529): F-12K Medium supplemented with 10% FBS, 1% Penicillin/Streptomycin plus 500 ug/ml Hygromycin B

6405 Mira Mesa Blvd, Ste 100
San Diego, CA 92121
Tel: 1.858.202.1401
Fax: 1.858.481.8694
Email: support@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% CO_2. The next day, change to fresh Growth Medium 3B (with Hygromycin) 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% CO_2.

To freeze cells, resuspend cell pellet in freezing medium (10% DMSO in FBS). BPS Bioscience recommends freezing down at least 10 vials of cells at an early passage number for future use.

Validation

Cell surface expression of human BAFF-R in CHO K1 cells was confirmed by flow cytometry.

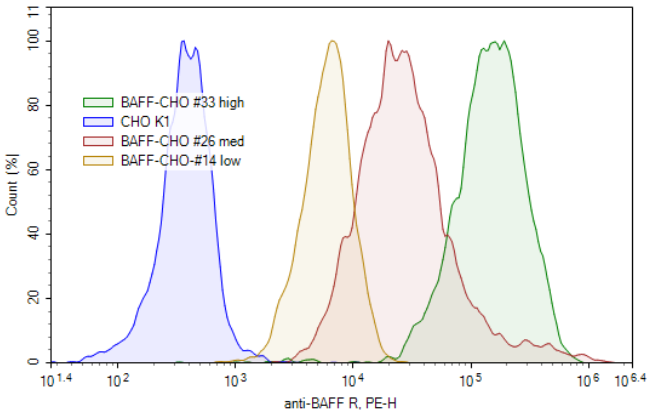

Figure 1. Flow cytometry analysis of cell surface expression of BAFF-R in CHO K1 cells. BAFF-R-CHO K1 cells with high (green), medium, (red), or low (orange) expression levels or control CHO K1 cells (blue) were stained with PE-labeled anti-human BAFF-R antibody (Biolegend, #316905) and analyzed by FACS. Y-axis is the % cell number. X-axis is the intensity of PE.

6405 Mira Mesa Blvd, Ste 100
San Diego, CA 92121
Tel: 1.858.202.1401
Fax: 1.858.481.8694
Email: support@bpsbioscience.com

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.

Vector and Sequence

Human BAFF-R/TNFRSF13C (accession number: NM_052945.3) was cloned into pCMV3.

MRRGPRSLRGRDAPAPTPCVPAECFDLLVRHCVACGLLRTPRPKPAGASSPAPRTALQPQES
VGAGAGEAALPLPGLLFGAPALLGLALVLALVLVGLVSWRRRQRRLRGASSAEAPDGDKDAPE
PLDKVIILSPGISDATAPAWPPPGEDPGTTPPGHSVPVPATELGSTELVTTKTAGPEQQ

License Disclosure:

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

Related Product	Cat. #	Size
Thaw Medium 3	60186	100ml
Growth Medium 3B	79529	500ml
BAFF-R-CHO Recombinant Cell Line (Medium Expression)	79921-M	2 vials
BAFF-R-CHO Recombinant Cell Line (Low Expression)	79921-L	2 vials
BAFF-R-CHO Recombinant Cell Line (High Expression)	79921-H	2 vials
BAFF-R(CD268)	90103-A	10 µg
BAFF, His-Avi-Tag HiP™	100194	50 µg
BAFF-R, Fc-fusion (IgG1), Avi-Tag	100286	100 µg
BAFF-R, Fc-fusion (IgG1), Avi-Tag, Biotinylated	100287-1	25 µg