CHO-BCMA

305972

GENERAL INFORMATION

Description

Disclaimer: The prices displayed for cell lines are exclusively for academic/not-for-profit customers. For commercial entitites the price is approximately €6,250.
If you represent a commercial entity or are unsure which category applies, please
contact us.
CHO-BCMA is a stable recombinant Chinese hamster ovary (CHO) cell line engineered to express full-length human B-cell maturation antigen (BCMA; TNFRSF17/CD269). The cell line was generated using a site-specific landing pad recombination system that enables reproducible genomic integration and stable target expression.
BCMA is a transmembrane receptor predominantly expressed on mature B cells and plasma cells, where it regulates cell survival and proliferation through interaction with the ligands BAFF and APRIL. The receptor is highly relevant in multiple myeloma and other B-cell malignancies, making CHO-BCMA cells useful for therapeutic antibody screening, CAR-T and bispecific T-cell engager development, receptor binding studies, and flow cytometry-based assay development.

Tissue	Ovary
Disease	Chinese hamster ovary, non-neoplastic; genetically engineered for BCMA (CD269/TNFRSF17) surface expression

Applications

Antibody screening; BCMA-targeted therapy development; CAR-T cell validation; multiple myeloma research; flow cytometry

CLASSIFICATION

Organism	Chinese hamster
Growth properties	Adherent and suspension
GMO status	GMO-S1

GMO status details

GMO-S1: This CHO cell line contains a BCMA expression cassette supporting receptor-function analyses. This classification applies only within Germany and may differ elsewhere.

Biosafety level	1

CHARACTERISTICS

Morphology	Epithelial-like
Cell type	Epithelial cells
Doubling time	approx. 14-16 hours

IDENTIFIERS

Citation

CHO-BCMA (Cytion catalog number 305972)

NCBI TaxID	10029

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Cellosaurus	CVCL_A8V3

EXPRESSION AND SUSCEPTIBILITY

Receptors expressed

BCMA, TNFRSF17/CD269

HANDLING AND CULTURE

Culture medium

For adherent cultures: DMEM:Ham's F12 (1:1), w: 3.1 g/L Glucose, w: 2.5 mM L-Glutamine, w: 15 mM HEPES, w: 0.5 mM Sodium pyruvate, w: 1.2 g/L NaHCO3 (Cytion article number 820400a)
For suspension cultures: CHO Growth Medium A (from InSCREENeX; InSCREENeX catalog number INS-ME-1039)

Incubation atmosphere	37°C, 5% CO_2, humidified atmosphere.

Supplements

For adherent cultures: Supplement the medium with 5% FBS. Add Geneticin (G418-Sulfat) to achieve a final concentration of 0.5 mg/mL.

Dissociation reagent	For adherent cultures: Trypsin-EDTA

Subculturing

For routine adherent cell culture: Aspirate the old culture medium from the adherent cells, and wash them with PBS to remove any remaining medium. After aspirating the PBS, add the appropriate volume of Trypsin/EDTA solution based on the culture vessel size (e.g., 1 ml for a T25 flask, 3 ml for a T75 flask) and incubate at room temperature or 37°C for 5-10 minutes, or until the cells detach. Monitor detachment under a microscope, and gently tap the vessel if necessary to release the cells. Once detached, add complete medium to inactivate the Trypsin/EDTA, gently resuspend the cells, and transfer an aliquot of the cell suspension into a new culture vessel containing fresh medium. Place the vessel in an incubator set to 37°C with 5% CO_2, and change the medium every 2-3 days.

Split ratio	A ratio of 1:5 to 1:10 is recommended
Seeding density	2 to 4 x 10^5 cells/mL
Fluid renewal	2 to 3 times per week

LEGAL AND SAFETY

Material Transfer Agreement required	Yes