Product sheet

B-LCL-HROG17 Cells | 302112

General information

Description	B-LCL-HROG17 is a human Epstein-Barr virus (EBV)-transformed B lymphoblastoid cell line (B-LCL) derived from the peripheral blood of a 70-year-old Caucasian male gastric cancer patient within the HROG biobank series. In vitro EBV transformation of primary peripheral blood B lymphocytes produced a stably immortalized, suspension-growing cell line. HROG17 cells display lymphoblast-like morphology and constitutively express EBV latency proteins and high-level HLA class I and II, co-stimulatory molecules CD80 and CD86, adhesion molecules CD54 and CD58, and B cell surface antigens CD19, CD20, and CD23, supporting potent antigen-presenting cell function. B-LCL-HROG17 is employed in T cell and NK cell assays, HLA typing, mixed lymphocyte reactions, antigen presentation studies, and CTL protocols. As part of the HROG patient-matched biobank, it provides a defined immunological reference for gastric cancer immunological research. The 70-year-old male donor context is suitable for studies of age-related immune function in the context of gastric cancer, including analyses of T cell responsiveness and APC efficiency in older male patients.
Organism	Human
Tissue	Peripheral blood
Disease	EBV-transformed B lymphoblastoid cell line (B-LCL); gastric cancer-associated donor
Applications	Immunology research; T cell and NK cell assays; HLA typing; antigen presentation studies; mixed lymphocyte reactions; CTL assay target cells; gastric cancer immunology

Characteristics

Age	70 years
Gender	Male
Ethnicity	Caucasian
Morphology	Lymphoblast-like
Cell type	B lymphoblast
Growth properties	Suspension

Regulatory Data

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Citation	B-LCL-HROG17 (Cytion catalog number 302112)
Biosafety level	2
NCBI_TaxID	9606
GMO Status	GMO-S2: This B-LCL contains a stably maintained EBV episome encoding viral latent-phase genes (EBNA-1/-2/-3, LMP-1/-2). EBV is classified as a risk group 2 pathogen. Handling requires BSL-2 containment. This classification applies within Germany; regulations may differ in other jurisdictions.

Biomolecular Data

Viruses	Transformant: EBV

Handling

Culture Medium	RPMI 1640, w: 2.0 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)
Supplements	Supplement the medium with 15–20% FBS
Doubling time	24 to 48 hours
Subculturing	Dilute the culture to 2–5 × 10^5 cells/ml with fresh pre-warmed complete medium every 2–3 days. Count viable cells before passaging to maintain optimal density. Do not allow cultures to exceed 2 × 10^6 cells/ml. Centrifugation (300 × g, 5 min) may be used to exchange medium when needed. No enzymatic dissociation is required.
Split ratio	1 to 4
Seeding density	2 to 5 × 10^5 cells/ml
Fluid renewal	Every 2 to 3 days
Freeze medium	As a cryopreservation medium, we use complete growth medium + 10% DMSO for adequate post-thaw viability.

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Thawing and Culturing Cells	1. Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit. 2. Upon receipt, either store the cryovial immediately at temperatures below -150°C to ensure the preservation of cellular integrity, or proceed to step 3 if immediate culturing is required. 3. For immediate culturing, swiftly thaw the vial by immersing it in a 37°C water bath with clean water and an antimicrobial agent, agitating gently for 40-60 seconds until a small ice clump remains. 4. Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening. 5. Carefully open the disinfected vial and transfer the cell suspension into a 15 ml centrifuge tube containing 8 ml of room-temperature culture medium, mixing gently. 6. Centrifuge the mixture at 200 x g for 5 minutes, carefully discard the supernatant containing freezing medium. 7. Follow the procedure described under Post-Thaw Recovery
Incubation Atmosphere	37°C, 5% CO_2, humidified atmosphere.
Shipping Conditions	Cryopreserved cell lines are shipped on dry ice in validated, insulated packaging with sufficient refrigerant to maintain approximately −78 °C throughout transit. On receipt, inspect the container immediately and transfer vials without delay to appropriate storage.
Storage Conditions	For long-term preservation, place vials in vapor-phase liquid nitrogen at about −150 to −196 °C. Storage at −80 °C is acceptable only as a short interim step before transfer to liquid nitrogen.

Quality Control & Molecular Analysis