# WSU-DLCL2

305655

## ALGEMENE INFORMATIE

### Beschrijving

WSU-DLCL2 is a human diffuse large B-cell lymphoma (DLBCL) cell line that has been widely used in lymphoma research. It is part of several large-scale genomic and proteomic characterization efforts, such as the Cancer Cell Line Encyclopedia (CCLE) and the LL-100 panel, which provide comprehensive molecular data for leukemia and lymphoma models. WSU-DLCL2 is classified within the germinal center B-cell (GCB) subtype of DLBCL and carries the EZH2 Y646F mutation, which is associated with altered histone methylation and epigenetic regulation of gene expression.
This cell line has been included in whole-genome sequencing studies to identify mutational landscapes in DLBCL, revealing a variety of structural alterations, somatic point mutations, and gene fusions. These genomic analyses have contributed to a better understanding of the oncogenic pathways involved in lymphomagenesis. Additionally, studies utilizing protein expression profiling, such as reverse-phase protein arrays, have demonstrated that WSU-DLCL2 exhibits distinct signaling pathway alterations that may influence drug sensitivity.
WSU-DLCL2 has also been studied in the context of antibody-dependent cellular cytotoxicity (ADCC) and resistance to targeted therapies, such as rituximab. Research has shown that the susceptibility of WSU-DLCL2 to rituximab-induced ADCC is influenced by the expression of CD20 and ligands for natural killer (NK) cell receptors, such as UL16-binding proteins (ULBP1-3). These findings support the use of WSU-DLCL2 as a preclinical model for evaluating novel therapeutic strategies targeting DLBCL.

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| **Weefsel** | Pleural effusion |
| **Ziekte** | Diffuse large B-cell lymphoma germinal center B-cell type |

### Synoniemen

- WSU-DLCL-2
- WSU-DLCL(2)
- WSUDLCL2

## CLASSIFICATIE

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| **Organisme** | Mens |
| **Seks** | Man |
| **Groei-eigenschappen** | Ophanging |
| **Bioveiligheidsniveau** | 1 |

## KENMERKEN

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| **Morfologie** | Round and oval cells growing singly or in small clumps |
| **Verdubbelingstijd** | 18 hours, 40-60 hours |

## IDENTIFICATIEGEGEVENS

### Bronvermelding

WSU-DLCL2 (Cytion catalog number 305655)

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| **NCBI-belastingnummer** | 9606 |
| **Cellosaurus** | CVCL_1902 |

## EXPRESSIE EN VATBAARHEID

### Antigeenexpressie

CD3 -, CD10 +, CD13 -, CD19 +, CD20 +, CD34 -, CD37 +, CD38 +, cyCD79a +, CD80 -, CD 138 -, HLA-DR +, sm/cyIgG +, sm/cyIgM -, sm/cykappa -, sm/cylambda +

### Mutatieprofiel

Mutation: EZH2, Simple, p.Tyr646Phe (c.1937A>T) (Y641F), Heterozygous, TP53, Simple, p.Arg248Gln (c.743G>A), Homozygous

### Virussen

EBV -, HBV -, HCV -, HIV-1 -, HIV-2 -, HTLV-1/2 -, MLV -, SMRV -

## BEHANDELING EN KWEEK

### Kweekmedium

RPMI 1640, w: 2.1 mM stable Glutamine, w: 2.0 g/L NaHCO3 (Cytion article number 820700a)

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| **Incubatieomgeving** | 37°C, 5% $CO_2$, humidified atmosphere. |

### Supplementen

Supplement the medium with h.i.a. 10% FBS

### Heruitplanten

0.5 x $10^6$ cells/ml

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| **Zaaidichtheid** | 3-5*10^5/ml |
| **Vloeistofverversing** | 2 to 3 times per week |

### Ontdooien en kweken

Confirm that the vial remains deeply frozen upon delivery, as cells are shipped on dry ice to maintain optimal temperatures during transit.
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.
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.
Perform all subsequent steps under sterile conditions in a flow hood, disinfecting the cryovial with 70% ethanol before opening.
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.
Centrifuge the mixture at 300 x g for 3 minutes to separate the cells and carefully discard the supernatant containing residual freezing medium.
Gently resuspend the cell pellet in 10 ml of fresh culture medium. For adherent cells, divide the suspension between two T25 culture flasks; for suspension cultures, transfer all the medium into one T25 flask to promote effective cell interaction and growth.
Adhere to established subculture protocols for continued growth and maintenance of the cell line, ensuring reliable experimental outcomes.

## KWALITEITSCONTROLE EN CRYOPRESERVATIE

### Onvruchtbaarheid

Mycoplasma contamination is excluded using both PCR-based assays and luminescence-based mycoplasma detection methods.
To ensure there is no bacterial, fungal, or yeast contamination, cell cultures are subjected to daily visual inspections.

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| **Kweekmedium invriezen** | As a cryopreservation medium, we recommend CM-1 (Cytion catalog number 800100), which includes optimized osmoprotectants and metabolic stabilizers to enhance recovery and reduce cryo-induced stress. |

### Opslagvoorwaarden

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.

### Verzendvoorwaarden

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.

## DONATEUR

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| **Leeftijd van de donor** | 41 years |
| **Etnische afkomst** | Caucasian |

## JURIDISCHE EN VEILIGHEIDSASPECTEN

### Veiligheidsmaatregelen

When planning to store a cryovial in liquid nitrogen for future thawing, it is mandatory to adhere to stringent safety measures. Appropriate protective gloves and clothing are essential, and the use of a face mask or safety goggles is required during the transfer of frozen samples to or from the liquid nitrogen tank. This is to mitigate the risk of injury from potential cryovial explosions upon removal, which can result in the projection of sharp fragments.

### Garantie

At Cytion, we stand behind the quality and viability of our products.
We guarantee that our cells will be viable at the start of culture for
60 days after shipment from our facilities.
We assure that all materials conform to the specifications described in the
Certificate of Analysis and/or Product Sheet.
For full details, please refer to our
Warranty Statement.

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| **Er is een overeenkomst inzake materiaaloverdracht vereist** | Yes |

## PRODUCTGEGEVENS

### Overzichtstabel