



U937-DC-SIGN

CRL-3253™

Description

U937-DC-SIGN was developed by transducing lymphocyte U-937 cells with the gene for human DC SIGN protein (Dendritic cell-specific intercellular adhesion molecule 3-grabbing non-integrin), a known attachment factor for Dengue viruses. The cloning vector used was pcDNA3 which contains SV-40 and CMV promoter regions. The U cell line that was established in 2008 from the stable transfection of U-937 cells (ATCC No. CRL-1593.2 isolated from a pleural effusion of a 37-year-old, white male patient with histiocytic lymphoma. This cell line was deposited by A. Desilva.

Organism: *Homo sapiens*, human

Cell Type: lymphocyte

Tissue: Pleural effusion

Age: 37 years

Gender: Male

Morphology: lymphocyte-like

Growth properties: Suspension

Disease: Histiocytic Lymphoma

Storage Conditions

Product format: Frozen

Storage conditions: Vapor phase of liquid nitrogen

Intended Use

This product is intended for laboratory research use only. It is not intended for any animal or human therapeutic use, any human or animal consumption, or any diagnostic use.

BSL 2

ATCC determines the biosafety level of a material based on our risk assessment as guided by the current edition of *Biosafety in Microbiological and Biomedical Laboratories (BMBL)*, U.S. Department of Health and Human Services. It is your responsibility to understand the hazards associated with the material per your organization's policies and procedures as well as any other applicable regulations as enforced by your local or national agencies.

Cells contain cytomegalovirus (CMV) DNA sequences

Cells contain SV40 sequences

ATCC highly recommends that appropriate personal protective equipment is always used when handling vials. For cultures that require storage in liquid nitrogen, it is important to note that some vials may leak when submersed in liquid nitrogen and will slowly fill with liquid nitrogen. Upon thawing, the conversion of the liquid nitrogen back to its gas phase may result in the vial exploding or blowing off its cap with dangerous force creating flying debris. Unless necessary, ATCC recommends that these cultures be stored in the vapor phase of liquid nitrogen rather than submersed in liquid nitrogen.

Certificate of Analysis

For batch-specific test results, refer to the applicable certificate of analysis that can be found at www.atcc.org.

Growth Conditions

Temperature: 37°C

Atmosphere: 95% Air, 5% CO₂

Handling Procedures

Unpacking and storage instructions:

1. Check all containers for leakage or breakage.
2. Remove the frozen cells from the dry ice packaging and immediately place the cells at a temperature below -130°C, preferably in liquid nitrogen vapor, until ready for use.

Complete medium: The base medium for this cell line is ATCC-formulated RPMI-1640 Medium, Catalog No. 30-2001. To make the complete growth medium, add the following components to the base medium:

- an additional 2 mM L-glutamine
 - non-essential amino acids to a final concentration of 0.1 mM
 - 2-mercaptoethanol to a final concentration of 0.05 mM
 - fetal bovine serum to a final concentration of 5%
 - **Subculturing procedure:** Cultures can be maintained by the addition of fresh medium or replacement of medium. Alternatively, cultures can be established by centrifugation with subsequent resuspension at 1×10^5 to 2×10^5 viable cells/mL.

Interval: Maintain cell density between 1×10^5 and 2×10^6 viable cells/mL.

Medium Renewal: Add fresh medium every 3 to 4 days (depending on cell density).

Material Citation

If use of this material results in a scientific publication, please cite the material in the following manner: U937-DC-SIGN (ATCC CRL-3253)

References

References and other information relating to this material are available at www.atcc.org.

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