

## Data Sheet

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|                           |   |
|---------------------------|---|
| <b>BCRJ Code:</b>         | 0211  |
| <b>Cell Line:</b>         | Raji  |
| <b>Species:</b>           | Homo sapiens  |
| <b>Vulgar Name:</b>       | Human   |
| <b>Tissue:</b>            | Lymph   |
| <b>Cell Type:</b>         | B Lymphocyte  |
| <b>Morphology:</b>        | Lymphoblast   |
| <b>Disease:</b>           | Burkitt'S Lymphoma  |
| <b>Growth Properties:</b> | Suspension  |
| <b>Sex:</b>               | Male  |
| <b>Age/Ethnicity:</b>     | 11 Year / Black   |
| <b>Derivation:</b>        | The RAJI line of lymphoblast-like cells was established in 1963 from a Burkitt lymphoma of the left maxilla of an 11 year-old negro male. |
| <b>Applications:</b>      | This cell line is suitable as a transfection host.  |
| <b>DNA Profile:</b>       | Amelogenin: X,Y CSF1PO: 10,12 D13S317: 13 D16S539: 8,11 D5S818: 10,13 D7S820: 10 THO1: 6,7 TPOX: 8,13 vWA: 16,19                          |
| <b>Virus Resistance::</b> | VESICULAR STOMATITIS VIRUS, poliovirus  |
| <b>Biosafety:</b>         | 2   |

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| <b>Additional Info:</b>             | Growth is in the form of single cells without attachment and as macroscopically visible clumps containing many hundreds of cells. This cell line carries the latent Epstein-Barr Virus (EBV) genome and is positive for EBNA.   |
| <b>Culture Medium:</b>              | RPMI-1640 medium modified to contain 2 mM L-glutamine, 4500 mg/L glucose and 10% of fetal bovine serum.   |
| <b>Subculturing:</b>                | Cultures can be maintained by the addition of fresh medium or replacement of medium. Alternatively, cultures can be established by centrifugation with subsequent resuspension $4 \times 10^5$ viable cells/mL. NOTE: A maximum of $3 \times 10^6$ viable cells/mL is obtainable. |
| <b>Subculturing Medium Renewal:</b> | Every 2 to 3 days   |
| <b>Culture Conditions:</b>          | Atmosphere: air, 95%; carbon dioxide (CO <sub>2</sub> ), 5% Temperature: 37°C   |
| <b>Cryopreservation:</b>            | 95% FBS + 5% DMSO (Dimethyl sulfoxide)  |

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### Thawing Frozen Cells:

**SAFETY PRECAUTION:** It is strongly recommended to always wear protective gloves, clothing, and a full-face mask when handling frozen vials. Some vials may leak when submerged in liquid nitrogen, allowing nitrogen to slowly enter the vial. Upon thawing, the conversion of liquid nitrogen back to its gas phase may cause the vial to explode or eject its cap with significant force, creating flying debris.

1. Thaw the vial by gently agitating it in a 37°C water bath. To minimize contamination, keep the O-ring and cap out of the water. Thawing should be rapid (approximately 2 minutes).
2. Remove the vial from the water bath as soon as its contents are thawed and decontaminate it by dipping in or spraying with 70% ethanol. From this point, all operations must be performed under strict aseptic conditions.
3. For cells sensitive to DMSO, it is recommended to remove the cryoprotective agent immediately. Transfer the vial contents to a centrifuge tube containing 9.0 mL of complete culture medium and centrifuge at approximately  $125 \times g$  for 5 to 7 minutes.
4. Discard the supernatant and resuspend the cell pellet in the recommended complete medium (see specific batch information for the appropriate dilution ratio).
5. Incubate the culture under appropriate atmospheric and temperature conditions (see "Culture Conditions" for this cell line).

**NOTE:** It is important to avoid excessive alkalinity of the medium during cell recovery. To minimize this risk, it is recommended to place the culture vessel containing the growth medium in the incubator for at least 15 minutes before adding the vial contents. This allows the medium to stabilize at its normal pH (7.0 to 7.6).

### References:

22142: Pulvertaft JV. Cytology of Burkitt's tumour (African lymphoma). Lancet 1: 238-240, 1964. PubMed: 14086209 22169: Epstein MA, Barr YM. Characteristics and mode of growth of tissue culture strain (EB1) of human lymphoblasts from Burkitt's lymphoma. J

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