Data Sheet

BCRJ Code:	0326
Cell Line:	CAL 27
Species:	Homo sapiens
Vulgar Name:	Human
Tissue:	Tongue
Cell Type:	Epithelial
Morphology:	Epithelial
Disease:	Squamous Cell Carcinoma
Growth Properties:	Adherent
Sex:	Male
Age/Ethinicity:	56 Year / Caucasian
Derivation:	Cal 27 was established in 1982 by J. Gioanni (Centre Antoine Lacassagne, Nice Cedex, France) from tissue taken prior to treatment from a 56 year old Caucasian male with a lesion of the middle of the tongue.
Tumor Formation::	Yes, solid tumors developed within 6 weeks in nude mice inoculated with 2 x 106 cells subcutaneously
Biosafety:	1

Addtional Info:	CAL 27 cells are epithelial, polygonal with a highly granular cytoplasm. Immunocytochemical studies show strong positive staining with anti keratin antibodies. The cells do not grow well in semi-solid medium. Marked inhibition of thymidine incorporation was observed in the presence of VP16 (etoposide), CCNU (1-[2-chloroethyl]-3-cyclohexyl-1-nitrosourea), VM26 (teniposide), ADM (adriamycin), CPA (cyclophosphamide), and MTX (methotrexate). CAL 27 cells were resistant to treatment with VDS (vindesine sulfate), CDP (cis-platinum) or ACTD (actinomycin D).
Culture Medium:	Dulbecco's Modified Eagle's Medium (DMEM) modified to contain 4 mM L-glutamine, 4500 mg/L glucose and fetal bovine serum to a final concentration of 10%.
Subculturing:	Remove spent medium, rinse with PBS without calcium and magnesium. Add fresh trypsin and let the culture sit at room temperature (or at 37°C) until the cells detach. Add fresh medium, aspirate and dispense into new flasks. Population Doubling Time: 35 hrs NOTE: For more information on enzymatic dissociation and subculturing of cell lines consult Chapter 12 in Culture of Animal Cells, a manual of Basic Technique by R. Ian Freshney, 6th edition, published by Alan R. Liss, N.Y., 2010.
Subculturing Medium Renewal:	Every 2 to 3 days
Subculturing Subcultivation Ratio:	1:6 is recommended
Culture Conditions:	Atmosphere: air, 95%; carbon dioxide (CO_2), 5% Temperature: 37°C
Cryopreservation:	95% FBS + 5% DMSO (Dimethyl sulfoxide)

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 × 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:	Gioanni J, et al. Two new human tumor cell lines derived from squamous cell carcinomas of the tongue: establishment, characterization and response to cytotoxic treatment. Eur. J. Cancer Clin. Oncol. 24: 1445-1455, 1988. PubMed: 3181269
Depositors:	CAROLINA AMÁLIA BARCELLOS SILVA - INSTITUTO E CENTRO DE PESQUISAS SÃO LEOPOLDO MANDIC
Cellosaurus:	CVCL_1107