BCRJ Code:	0304
Cell Line:	U-2 OS
Species:	Homo sapiens
Vulgar Name:	Human
Tissue:	Bone
Cell Type:	Epithelial
Morphology:	Epithelial
Disease:	Osteosarcoma
Growth Properties:	Adherent
Sex:	Female
Age/Ethinicity:	15 Year / Caucasian
Derivation:	J. Ponten and E. Saksela derived this line (originally 2T) in 1964 from a moderately differentiated sarcoma of the tibia of a 15 year old girl.
Applications:	This cell line is a suitable transfection host.
DNA Profile:	Amelogenin: X CSF1PO: 13 D13S317: 13 D16S539: 11,12 D5S818: 11 D7S820: 11,12 THO1: 6,9.3 TPOX: 11,12 vWA: 14,18
Products:	Antigen expression: Blood Type A; Rh+; HLA A2, Aw30, B12, Bw35, B40(+/-) Receptor expression: insulin-like growth factor I (IGF-I); insulin-like growth factor II (IGF II) Genes Expressed: osteosacoma derived growth factor (ODGF),Blood Type A; Rh+; HLA A2, Aw30, B12, Bw35, B40(+/-)
Biosafety:	1

Addtional Info:	RECEPTORES EXPRESSED: INSULIN-LIKE GROWTH FACTOR I (IGF-I); INSULIN-LIKE GROWTH FACTOR II(IGF-II)
Culture Medium:	McCoy's 5A Medium is modified to contain 2 mM L-glutamine and fetal bovine serum to a final concentration of 10%.
Subculturing:	Remove medium, and rinse with PBS without calcium and magnesium. Remove the solution and add an additional 1 to 2 mL of trypsin-EDTA solution. Allow the flask to sit at room temperature (or at 37°C) until the cells detach. Add fresh culture medium, aspirate and dispense into new culture flasks. T-75 flasks are recommended for subculturing this product. 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:	2 to 3 times per week
Subculturing Subcultivation Ratio:	1:3 to 1:6 is recommended
Culture Conditions:	Atmosphere: air, 95%; carbon dioxide (CO2), 5% Temperature: 37°C
Cryopreservation:	95% FBS + 5% DMSO (Dimethyl sulfoxide)

Thawing Frozen Cells:	SAFETY PRECAUTION: Is highly recommend that protective gloves and clothing always be used and a full face mask always be worn when handling frozen vials. It is important to note that some vials 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 vessel exploding or blowing off its cap with dangerous force creating flying debris. 1. Thaw the vial by gentle agitation in a 37°C water bath. To reduce the possibility of contamination, keep the Oring and cap out of the water. Thawing should be rapid (approximately 2 minutes). 2. Remove the vial from the water bath as soon as the contents are thawed, and decontaminate by dipping in or spraying with 70% ethanol. All of the operations from this point on should be carried out under strict aseptic conditions. 3. For cells that are sensitive to DMSO is recommended that the cryoprotective agent be removed immediately. Transfer the vial contents to a centrifuge tube containing 9.0 mL complete culture medium and spin at approximately 125 x g for 5 to 7 minutes. 4.Discard the supernatant and Resuspend cell pellet with the recommended complete medium (see the specific batch information for the culture recommended dilution ratio). 5. Incubate the culture in a appropriate atmosphere and temperature (see "Culture Conditions" for this cell line). NOTE: It is important to avoid excessive alkalinity of the medium during recovery of the cells. It is suggested that, prior to the addition of the vial contents, the culture vessel containing the growth medium be placed into the incubator for at least 15 minutes to allow the medium to reach its normal pH (7.0 to 7.6).
References:	Heldin CH, et al. A human osteosarcoma cell line secretes a growth factor structurally related to a homodimer of PDGF A-chains. Nature 319: 511-514, 1986.
Depositors:	SILVIA REGINA CAMINADA DE TOLEDO - Grupo de Apoio ao Adolescente e Criança com Câncer
ATCC:	HTB-96
Cellosaurus:	CVCL_0042