

## U2OS | 300364

### General Information

**Description** U2OS, a cell line derived from a human osteosarcoma, is a widely used model for studying cell growth, differentiation, and drug response. It is characterized by its high proliferation rate and ability to form colonies in soft agar. U2OS cells are derived from a human osteosarcoma and are widely used in cell biology research. They are characterized by their high proliferation rate and ability to form colonies in soft agar. U2OS cells are derived from a human osteosarcoma and are widely used in cell biology research. They are characterized by their high proliferation rate and ability to form colonies in soft agar.

**Organism** Human

**Tissue** Bone, Osteosarcoma

**Disease** Osteosarcoma

**Synonyms** U-2 OS, U-2OS, U-2-OS, U2-OS, U20-S, U20S, 2T

### Characteristics

**Age** 15 days

**Gender** Male

**Ethnicity** Caucasian

**Morphology** Epithelial cells

**Growth properties** Adherent, clonal

### Identification

**Citation** U2OS (ATCC CRL-2739) | Cytion 300364

**Biosafety level** 1

**NCBI\_TaxID** 9606

**CellosaurusAccession** CVCL\_0042

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**Cell Line**

**Receptors expressed** IGF-1R (IGF-I), IGF-1R (IGF-II), IGF-1R (ODGF)

**Antigen expression** A, Rh+, HLA A2, Aw30, B12, Bw35, B40(+/-)

**Isoenzymes** PGM3, 1, PGM1, 2, ES-D, 1, AK-1, 1, GLO-1, 2, G6PD, B, IGF-1R 0.0082

**Products** IGF-1R (ODGF)

**Karyotype** (P11-46) 46,XX,XY,t(11;18)(p11;p11), (P111-118) 46,XX,XY,t(11;18)(p11;p11)

**Media**

**Culture Medium** DMEM:Ham's F12 (1:1), w: 3.1 g/L D-glucose, w: 2.5 mM L-glutamine, w: 15 mM HEPES, w: 0.5 mM beta-mercaptoethanol, w: 1.2 g/L NaHCO3 (820400a)

**Supplements** 10% FBS

**Dissociation Reagent** Trypsin

**Subculturing** 1:2 to 1:10 in DMEM:Ham's F12 (1:1), w: 3.1 g/L D-glucose, w: 2.5 mM L-glutamine, w: 15 mM HEPES, w: 0.5 mM beta-mercaptoethanol, w: 1.2 g/L NaHCO3 (820400a) + 10% FBS

**Seeding density** 1 x 10<sup>4</sup> cells/cm<sup>2</sup>

**Fluid renewal** 2-3 times per week

**Freeze medium** DMEM:Ham's F12 (1:1), w: 3.1 g/L D-glucose, w: 2.5 mM L-glutamine, w: 15 mM HEPES, w: 0.5 mM beta-mercaptoethanol, w: 1.2 g/L NaHCO3 (820400a) + 10% DMSO + 10% FBS

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Thawing and Culturing Cells

1. Thaw the vial quickly in a 37°C water bath. Transfer the cells to a pre-warmed medium.
2. Centrifuge at 300 x g for 3 minutes. Resuspend in 15 ml of pre-warmed medium.
3. Seed into a 10 cm<sup>2</sup> flask with 8 ml of medium.
4. Incubate at 37°C in 5% CO<sub>2</sub>.
5. After 24 hours, check for confluency. If >70%, passage the cells.
6. For passage, trypsinize and seed into a 10 cm<sup>2</sup> flask with 8 ml of medium.
7. Incubate at 37°C in 5% CO<sub>2</sub>.
8. When confluent, passage the cells.

**Incubation Atmosphere** 37°C, 5% CO<sub>2</sub>, humidified

**Flask Coating** None

**Freezing Procedure** Harvest cells and resuspend in freezing medium. Store at -80°C.

**Shipping Conditions** Store at -80°C.

**Storage Conditions** Store at -150°C for 196 days.

Genotype / HLA

**Sterility** PCR confirmed. No mycoplasma detected.

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HLA

**A\***: '02:01:01, '32:01:01

**B\***: '44:02:01, '44:27:01

**C\***: 05:01:01, 07:04:01

**DRB1\***: 09:01:02, 14:54:01

**DQA1\***: '01:04:01, '03:02:01

**DQB1\***: 03:03:02, 05:03:01

**DPB1\***: '02:01:02, '04:01:01

**E**: 01:01:01