

# Human Osteogenic tumor Cell lines

Part of the CLS cell bank

CLS Cell Lines Service



**Table 1: Human Bone tumor cell lines: Origin and General Characteristics**

Name of cell line	Cell type	Organism, Ethnicity	Age / Gender	Tissue / Disease	Morphology	Growth properties	CLS order no.
A-673 <sup>1</sup>	Human Bone Rhabdomyosarcoma cell line	Homo sapiens (Human) / Caucasian	15 years / Female	Ewing sarcoma	Fibroblast	Monolayer, Adherent	300454
CADO-ES1 <sup>2</sup>	Human Bone Ewing's sarcoma cell line	Homo sapiens (Human) / Caucasian	19 years / Female	Ewing's sarcoma	Small round tumor cells	Monolayer, Adherent	300127
HOS <sup>3</sup>	Human Bone Osteosarcoma cell line	Homo sapiens (Human) / Caucasian	13 years / Female	Bone sarcoma	Fibroblasts and epithelial like cells	Monolayer, Adherent	300449
HS-729 <sup>4</sup>	Human Bone Rhabdomyosarcoma cell line	Homo sapiens (Human) / Caucasian	74 years / Male	Soft Tissue, Rhabdomyosarcoma	Fibroblast	Monolayer, Adherent	300443
KHOS-240S <sup>5</sup>	Human Bone Osteosarcoma cell line	Homo sapiens (Human) / Caucasian	13 years / Female	Bone, Osteosarcoma; osteogenic	Fibroblast	Monolayer, Adherent	300433
KHOS-312H <sup>5</sup>	Human Bone Osteosarcoma cell line	Homo sapiens (Human) / Caucasian	13 years / Female	Bone, Sarcoma, osteogenic	Fibroblast	Monolayer, Adherent	300447
KHOS-NP <sup>6</sup>	Human Bone Osteosarcoma cell line	Homo sapiens (Human) / Caucasian	13 years / Female	Bone, Osteosarcoma	Fibroblast	Monolayer, Adherent	300235
MG-63 <sup>7</sup>	Human Bone Osteosarcoma cell line	Homo sapiens (Human) / Caucasian	14 years / Male	Bone, Osteosarcoma	Fibroblast	Monolayer, Adherent	300441
MHH-ES1 <sup>8</sup>	Human Bone Ewing's sarcoma cell line	Homo sapiens (Human) / Caucasian	12 years / Male	Bone, Ewing's sarcoma	Small round tumor cells	Monolayer, Adherent, clusters	300136
MNNG-HOS <sup>7</sup>	Human Bone Osteosarcoma cell line	Homo sapiens (Human) / Caucasian	13 years / Female	Bone, Osteosarcoma	Fibroblast	Monolayer, Adherent	300289
RD-ES <sup>9</sup>	Human Bone Ewing's sarcoma cell line	Homo sapiens (Human) / Caucasian	19 years / Male	Bone, Ewing's sarcoma	Epithelial	Monolayer, Adherent	300410
SaOS-2 <sup>10</sup>	Human Bone osteosarcoma cell line	Homo sapiens (Human) / Caucasian	11 years / Female	Bone, Osteosarcoma	Epithelial	Monolayer, Adherent	300331
SW-1353 <sup>11</sup>	Human Bone chondrosarcoma cell line	Homo sapiens (Human) / Caucasian	72 years / Female	Bone (Right humerus), Chondrosarcoma (Grade II)	Fibroblast	Monolayer, Adherent	300440
U-2 OS <sup>12</sup>	Human Osteosarcoma cell line	Homo sapiens (Human) / Caucasian	15 years / Female	Bone, Osteosarcoma	Epithelial	Monolayer, Adherent	300364

**Table 2: Human Bone tumor cell lines: Special Features**

Name of cell line	Cell type	Isoenzymes	Karyotype	Virus Susceptibility	Secretion of Products	Ref ID in Cellosaurus <sup>13</sup>	CLS order no.
A-673 <sup>1</sup>	Human Bone Rhabdomyosarcoma cell line			Very sensitive to human adenoviruses		RRID:CVLL_0080	300454
CADO-ES1 <sup>2</sup>	Human Bone Ewing's sarcoma cell line				Receptors Expressed: CD99	RRID:CVCL_1103	300127
HOS <sup>3</sup>	Human Bone Osteosarcoma cell line	G6PD, B				RRID:CVCL_0312	300449
HS-729 <sup>4</sup>	Human Bone Rhabdomyosarcoma cell line	G6PD, B				RRID:CVCL_0871	300443
KHOS-240S <sup>5</sup>	Human Bone Osteosarcoma cell line					RRID:CVCL_2544	300433
KHOS-312H <sup>5</sup>	Human Bone Osteosarcoma cell line					RRID:CVCL_2545	300447
KHOS-NP <sup>6</sup>	Human Bone Osteosarcoma cell line					RRID:CVCL_2546	300235
MG-63 <sup>7</sup>	Human Bone Osteosarcoma cell line				Interferon Receptors Expressed: Transforming growth factor beta (TGF beta, type I and type II)	RRID:CVCL_0426	300441
MHH-ES1 <sup>8</sup>	Human Bone Ewing's sarcoma cell line					RRID:CVCL_1411	300136
MNNG-HOS <sup>7</sup>	Human Bone Osteosarcoma cell line	G6PD, B				RRID:CVCL_0439	300289
RD-ES <sup>9</sup>	Human Bone Ewing's sarcoma cell line	G6PD, B; PGM1, 1-2; PGM3, 1; ES-D, 1; Me-2, 1-2; AK-1, 1; GLO-1, 1-2; Phenotype Frequency Product: 0.0359			Antigen Expression : Blood type B; Rh+	RRID:CVCL_2169	300410

**Table 2: Human Bone tumor cell lines: Special Features**

Name of cell line	Cell type	Isoenzymes	Karyotype	Virus Susceptibility	Secretion of Products	Ref ID in Cellosaurus <sup>13</sup>	CLS order no.
SaOS-2 <sup>10</sup>	Human Bone osteosarcoma cell line	Me-2, 1; PGM3, 1-2, PGM1, 1-2, ES-D, 2; AK-1, 1; GLO-1, 2; G6PD, B; Phenotype Frequency Product: 0.0002	hypotriploid, modal number: 56, 2S component 13.2%. Over two-thirds chromosome complement structurally rearranged chromosomes. Most marker chromosomes had complex rearrangements. The origin of the segments composing these markers could not be identified. Of the identifiable markers, 6p+/q+, 7p+, 11p+, and 12p+ occasionally were present at 2 copies per cell. The Y chromosome was not detected in the QM stained preparation.		p53 negative Antigen Expression : Blood Type B, Rh+; HLA A2, A3, Bw16, Bw47 Receptors Expressed: epidermal growth factor (EGF); transforming growth factor beta (type 1 and type 2)	RRID:CVCL_0548	300331
SW-1353 <sup>11</sup>	Human Bone chondrosarcoma cell line	G6PD, B; PGM1, 1; PGM3, 2; ES-D, 2; AK-1, 1; GLO-1, 2; Phenotype Frequency Product: 0.00009	hyperdiploid 47, XX, +7; Except for the trisomic N7 no other chromosome markers are evident		Antigen Expression : Blood type O-	RRID:CVCL_0543	300440
U-2 OS <sup>12</sup>	Human Osteosarcoma cell line	PGM3, 1; PGM1, 2; ES-D, 1; AK-1, 1; GLO-1, 2; G6PD, B; Phenotype Frequency Product: 0.0082	P11-46) hypodiploid to near tetraploid; (P111-118) modal numbers 34 to 37 and 64 to 67 with abnormalities including dicentrics, breaks, rings, and pulverizations plus acrocentric subtelocentric and minute markers		Antigen expression: Blood Type A; Rh+; HLA A2, Aw30, B12, Bw35, B40(+/-) Receptors expressed : Insulin-like growth factor I (IGF-I); insulin-like growth factor II (IGF-I) Osteosarcoma derived growth factor (ODGF)	RRID:CVCL_0042	300364

For more information on cell culture conditions, authentication data and others please visit the CLS website: [www.clsgmbh.de](http://www.clsgmbh.de)

## References:

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13. <http://web.expasy.org/cellosaurus/> - the cellosaurus represents a detailed data collection bank of a plethora of cell line relevant data from various cell banks.

All of the products listed in Table 1/Table 2 are intended for research use only, not for use in humans, for therapeutic or diagnostic applications.

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