



Leibniz Institute
DSMZ-German Collection
of Microorganisms
and Cell Cultures GmbH



293T

ACC 635

Cell line:
293T

DSMZ no.:
ACC 635

Species:
human (*Homo sapiens*)

Cell type:
embryonal kidney

Origin:
highly transfectable derivative of the human primary embryonal kidney cell line 293 (ACC 305) carrying a plasmid containing the temperature sensitive mutant of SV-40 large T-antigen (tsA1609); cells originally referred to as 293tsA1609neo; cells were described in the literature to be Genitacin (Neomycin, G418) resistant and to express SV-40 large T at 33°C, but not at 40°C; classified as risk group 1 according to the German Central Commission for Biological Safety (ZKBS)

Reference(s):
[14893](#), [14495](#), [14839](#)

Biosafety level:

1, GMO-S1

Risk

assessment:

The cell line was established by transfection of the cells with sheared DNA of adenovirus type 5. The cells contain 4 to 5 copies of the left end of the virus (12% of the viral genome) including E1a and E1b genes and one copy of the right end of the virus (10% of the genome) including the E4 gene. No active viruses are produced.

Permissions

and

restrictions:

[A](#), [D](#)

DSMZ Cell Culture Data:

Morphology:

oval to fibroblastoid cells growing adherently as monolayer;

[image](#); [image](#); [image](#)

Medium:

90% Dulbecco's MEM + 10% h.i. FBS

Subculture:

seed out at ca. $1-3 \times 10^6$ cells/80 cm²; split confluent culture 1:4 - 1:5 every 2-3 days (without using trypsin/EDTA, cells can be detached by tapping the flask)

Incubation:

at 37 °C with 5% CO₂

Doubling time:

ca. 24-30 hours

Harvest:

cell harvest of ca. 40×10^6 cells/175 cm²

Storage:

frozen with 70% medium, 20% FBS, 10% DMSO

DSMZ Scientific Data:

Mycoplasma:

negative in microbiological culture, PCR assays

Immunology:

To inquire about expression of EpCAM and intermediate filaments, contact hilmar.quentmeier@dsmz.de.

Fingerprint:

same DNA profile as 293 (ACC 305) by fluorescent nonaplex PCR of short tandem repeat markers

Species:

confirmed originally as human by species PCR and later by STR fingerprinting

Cytogenetics:

human flat-moded near-triploid karyotype; 61-73<3n>XXX, add(1)(p32), add(1)(q44)x1-2, der(4;10)(q10;q10), del(8)(p12), t(9;9)(p24;q21), der(13)t(6;13)(q21;q32), der(14)t(13;14)(q32;q32), del(17)(p11), der(22)t(17;22)(q21;q22)

Molec.

Genetics:

presence of large T-antigene (SV40) was confirmed by genomic PCR

Viruses:

PCR: EBV -, HBV -, HCV -, HIV-1 -, HIV-2 -, HTLV-I/II -, MLV -, SMRV -

Supplied as:

Delivery form	Prices
Frozen culture	400,- €
Growing culture (please inquire for exact delivery time)	800,- €
DNA isolated from cell line (25 µg)	500,- €

DNA isolated from cell line (5 µg)

120,- €

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