



Cell line:	293
DSMZ no.:	ACC 305
Species:	human (<i>Homo sapiens</i>)
Cell type:	embryonal kidney
Origin:	established from a human primary embryonal kidney transformed by adenovirus type 5 (Ad 5); classified as risk category 1 according to the German Central Commission for Biological Safety (ZKBS); cell line also known as HEK-293 (human embryonic kidney-293)
Reference(s):	<u>14573</u>
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:	<u>A</u> , <u>D</u>
DSMZ Cell Culture Data:	
Morphology:	adherent fibroblastoid cells growing as monolayer; <u>image</u> ; <u>image</u>
Medium:	90-95% Dulbecco's MEM + 5-10% h.i. FBS
Subculture:	split confluent culture 1:5 to 1:6 every 2-3 days (without using trypsin/EDTA, cells can be detached by tapping the flask); seed out at about $2\text{-}3 \times 10^6$ cells/25 cm ²
Incubation:	at 37 °C with 10% CO ₂
Doubling time:	about 24-30 hours
Harvest:	cell harvest of about 40×10^6 cells/175 cm ²
Storage:	frozen with 70% medium, 20% FBS, 10% DMSO
DSMZ Scientific Data:	
Mycoplasma:	negative in DAPI, microbiological culture, RNA hybridization, PCR assays
Immunology:	cytokeratin +, cytokeratin-7 -, cytokeratin-8 +, cytokeratin-17 -, cytokeratin-18 (+), cytokeratin-19 -, desmin -, endothel -, EpCAM -, GFAP -, neurofilament +, vimentin +
Fingerprint:	multiplex PCR of minisatellite markers revealed a unique DNA profile
Species:	confirmed as human with IEF of AST, LDH

Cytogenetics: human near-triploid karyotype with 6% polyploidy - 69(64-69)XX?X, +1, +6, -10, -13, -16, -18, -20, +21, +22, +mar, add(?X)(p22), inv(1)(p35q43), del(1)(p35), i(5p), del(6)(q11), add(8)(q24), add(13)(p13), add(17)(qter), der(?)t(5;?) (q13;?)

Viruses: ELISA: reverse transcriptase negative; PCR: EBV -, HBV -, HCV -, HHV-8 -, HIV-1 -, HIV-2 -, HTLV-I/II -, MLV -, SMRV -

Supplied as:	Delivery form	Prices
	Frozen culture	360,- €
	Growing culture (please inquire for exact delivery time)	720,- €
	DNA isolated from cell line (25 µg)	440,- €
	DNA isolated from cell line (5 µg)	100,- €

[see price list](#)

[Print data sheet](#)

Date of Collection
(in situ sampling):
