

Human embryonic kidney cells (HEK) | 300715

General information

Description	Human embryonic kidney cells (HEK) are a widely used cell line for studying cellular processes and drug response. They are derived from a human embryo and are characterized by their high proliferation rate and ease of transfection. HEK cells are commonly used in molecular biology, biochemistry, and pharmacology research.
Organism	Human
Tissue	Kidney

Cell characteristics

Morphology	Epithelial
Growth properties	Adherent

Cell line identification

Citation	Human embryonic kidney cells (HEK) (ATCC CCL-232) Cytion 300715
NCBI_TaxID	9606

Cell line authentication

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 sodium pyruvate, w: 1.2 g/L NaHCO3 (820400a)
Supplements	10% FBS, 10 ng/mL bFGF, 10 µg/mL insulin-like growth factor-1
Dissociation Reagent	Trypsin

Subculturing Cells are typically grown in 25 cm² flasks. When cells reach 80-90% confluency, they can be passaged into new flasks using trypsin. The cells are usually grown in DMEM:Ham's F12 (1:1) supplemented with 10% FBS, 10 ng/mL bFGF, and 10 µg/mL insulin-like growth factor-1.

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 sodium pyruvate, w: 1.2 g/L NaHCO3 (820400a) + 90% FBS + 10% DMSO
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Human Hepatocellular Carcinoma (HFFC) | 300715

**Thawing and
Culturing Cells**

1. Thaw the vial quickly in a water bath at 37°C, and transfer the cells to a pre-warmed medium.
2. Centrifuge the cells at 300 x g for 3 minutes, discard the supernatant, and resuspend the cells in 15 ml of medium.
3. Seed the cells into a T25 flask containing 37 ml of medium.
4. Incubate the cells at 37°C in 5% CO₂ for 24 hours.
5. After 24 hours, check the cell morphology. If the cells are not adhering, add 10 ml of medium.
6. Once the cells are adherent, they can be used for experiments.
7. If the cells are not adhering after 48 hours, they can be trypsinized and reseeded.
8. The cells are typically confluent after 72 hours.

**Incubation
Atmosphere**

37°C, 5% CO₂, humidified air

Flask Coating

Cells are typically grown on uncoated flasks.

**Freezing
Procedure**

Cells are typically frozen in 1 ml of freezing medium and stored at -80°C.

**Shipping
Conditions**

Cells are typically shipped in 1 ml of freezing medium and stored at -80°C.

**Storage
Conditions**

Cells are typically stored in 1 ml of freezing medium at -150 to -196 °C.

Genotype / Phenotype / HLA

Sterility

Cells are typically tested for mycoplasma contamination using PCR. Cells are also tested for sterility using a sterility test kit.