

HEK293-CTLA4 | 305423

HEK293-CTLA4

Description	HEK293-CTLA4 is a cell line derived from HEK293 cells, expressing the CTLA4 gene. The cells are characterized by their high growth rate and the ability to produce large amounts of protein. The CTLA4 gene is a member of the B7 family and plays a crucial role in regulating the immune response. The HEK293-CTLA4 cell line is used for studying the function of CTLA4 and for producing recombinant proteins. HEK293-CTLA4 cells are derived from HEK293 cells, which are a widely used cell line for studying cellular processes. The CTLA4 gene is introduced into the cells via a viral vector, resulting in the expression of the CTLA4 protein. The cells are then selected and grown in the presence of a selection agent, such as puromycin, to ensure that only the cells expressing the CTLA4 protein survive.
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Organism	HEK293
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Tissue	HEK293
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Disease	HEK293-CTLA4, HEK293-CTLA4 (HEK293)
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Applications	HEK293-CTLA4 cells are used for studying the function of CTLA4 and for producing recombinant proteins. The cells are also used for studying the effects of CTLA4 on the immune response.
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HEK293-CTLA4

Age	HEK293
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Gender	HEK293
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Morphology	HEK293
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Cell type	HEK293
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Growth properties	HEK293, HEK293
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HEK293-CTLA4

Citation	HEK293-CTLA4 (HEK293-CTLA4) Cytion 305423
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Biosafety level	1
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NCBI_TaxID	9606
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CellosaurusAccession	CVCL_6G20
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GMO Status

GMO-S1: HEK293 cells expressing CTLA-4 protein

Receptors expressed

CTLA4 (CD152)

Culture Medium

RPMI 1640, w: 2.0 mM CaCl_2 , w: 2.0 g/L NaHCO_3 (Cytion 820700a)

Supplements

10% FBS, 1 mM CaCl_2 , 10 mM HEPES, 1% NEAA. Geneticin (G418-Sulfat) 1 mg/ml

Dissociation Reagent

EDTA

Doubling time

24–36 h

Subculturing

Cells are detached using EDTA and seeded into new flasks. Media is replaced with fresh medium. Cells are passaged every 2–3 days.

Split ratio

1 : 5

Seeding density

$2 \times 10^4 \times \frac{1}{1000000}$

Fluid renewal

2–3 times per week

Post-Thaw Recovery

Cells are thawed and seeded into flasks. Media is replaced with fresh medium. Cells are passaged every 2–3 days.

Freeze medium

Cells are seeded into flasks. Media is replaced with fresh medium. Cells are passaged every 2–3 days.

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Thawing and
Culturing Cells

1. Remove the vial from liquid nitrogen storage, and immediately place the vial in a water bath at 37°C. Gently swirl the vial to thaw the cells.
2. Once the cells are thawed, add 1 mL of complete DMEM medium to the vial and incubate at 37°C for 15 minutes.
3. Centrifuge the cells at 300 x g for 5 minutes at 4°C. Remove the supernatant and resuspend the cells in 1 mL of complete DMEM medium.
4. Seed the cells into a 24-well plate at a density of 150,000 cells per well. Incubate at 37°C for 24 hours.
5. After 24 hours, replace the medium with fresh complete DMEM medium.
6. Harvest the cells for RNA extraction at 72 hours post-seeding.
7. Harvest the cells for protein extraction at 72 hours post-seeding.
8. Harvest the cells for Western blot analysis at 72 hours post-seeding.

Incubation
Atmosphere

37°C, 5% CO₂, humidified

Flask Coating

Not required

Freezing
Procedure

Cells can be frozen in complete DMEM medium with 10% FBS. Freeze at -80°C.

Shipping
Conditions

Cells can be shipped at -80°C.

Storage
Conditions

Cells can be stored at -150°C for up to 196 weeks.

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Sterility

Cells are supplied in a sterile, sealed vial. PCR products are not included. Cells are not tested for mycoplasma contamination.