

Datasheet for HEK293T / anti-CD3(OKT3) Stable Cell Line

Catalog number: SL136

Product: HEK293T cell line stably expressing CD3(OKT3)

Description: This product is a cell line stably expressing the OKT3, OKT3 is the monoclonal antibody name for CD3. By stably expressing the single-chain variable fragment (scFv) of OKT3 to mimic antigen-presenting cell functions, it can specifically bind to T cell receptors (TCR/CD3 complex) to transmit the first activation signal. This cell line is compatible with foreign gene transfection and can flexibly incorporate co-stimulatory molecules (such as CD80,4-1BBL) or co-inhibitory molecules (such as PD-L1, FLRT3), enabling the construction of T cell dual-signal regulation (activation/inhibition) models.

Quantity: 1 vial of 2×10^6 cells; frozen

Shipping conditions: Dry ice

Storage conditions: Liquid nitrogen vapor phase. Remove the item from the dry ice packaging and check all items for damage and leakage. Place immediately into storage at or below -140°C , preferably into the liquid nitrogen vapor phase, until use.

Transgene integration:



Source of parental line:

HEK 293T
Organism: Homo sapiens, human
Tissue: kidney; Embryo
Morphology: Epithelial

Safety instructions: To ensure safety, protective gloves, clothing, and a face mask should be worn when handling frozen vials. Some leakage may occur into the vial during storage. The liquid nitrogen will be converted to gas upon thawing. Due to the nature of nitrogen gas, pressure may build within the vial and possibly result in the vial exploding or losing its cap. This may cause flying debris.

Thawing procedure: The vial of cells should be thawed in a water bath at 37°C with gentle agitation. For optimal performance, the vial should be thawed in under two minutes. Ensure that the cap of the vial did not loosen upon thawing, and re-tighten as needed. Spray the vial with 70% EtOH and wipe off. Repeat. Using aseptic technique, add the contents of the vial to 9 mL of complete growth medium (without selection). Centrifuge for 5 min. at 250 x g. Aspirate the medium, being careful not to disturb the pellet. Resuspend in 10 mL of complete growth medium, and place into a culture vessel of your choice. Only add selection to the medium after 24 hours in culture.

Culture conditions:

Complete Growth Medium

The base medium for this cell line is DMEM. For optimal growth and maintenance of selection, add the following components to the base medium: fetal bovine serum to a final concentration of 10%.

Selection

Puromycin to a final concentration of 1 µg/mL

Culture temperature:

37°C with 5% CO₂

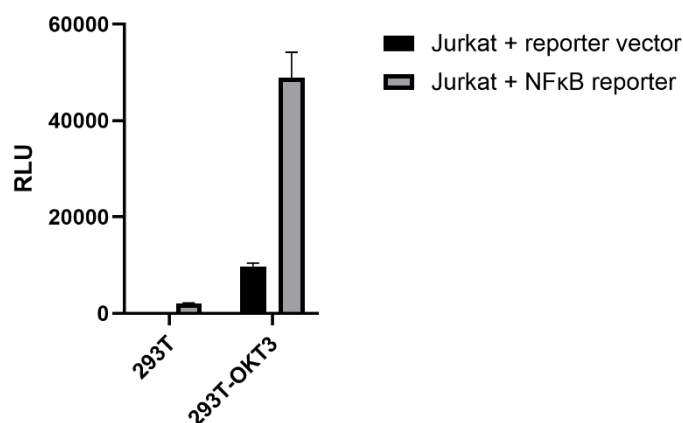
Cell passage:

Rinse the cells with PBS without cations, digest cells with 0.25% (w/v) Trypsin-EDTA (0.53 mM) solution and split at 1:3 to 1:6 ratio.

Cryopreservation: Freeze slowly in complete growth medium supplemented with 5% (v/v) DMSO.

Quality control: >95% viability before freezing. All cells were tested and found to be free of mycoplasma, bacteria, viruses, and other toxins.

T cell activation Assay



After 48h of culture of Jurkat cells transfected with NFκB reporter gene or no-responsive element reporter gene, 293T or 293T-OKT3 were co-cultured with the transfected cells for 24h, and 20 μL of culture medium supernatant was collected to detect *Gluc* activity using #LF061 (GeneCopoeia).

Citation of product: If use of this item results in a publication, please use this information:
HEK293T / anti-CD3(OKT3) (SL136, GeneCopoeia, Inc., Rockville, MD).

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