

# CD6-LifeAct-GFP Jurkat cell line

**Catalogue number:** 160715

**Sub-type:** Continuous

**Images:**

## Contributor

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**Images:**

## Tool details

**\*FOR RESEARCH USE ONLY**

**Name:** CD6-LifeAct-GFP Jurkat cell line

**Alternate name:** CD6

**Class:**

**Conjugate:**

**Description:** Activation of the T cell receptor (TCR) on the T cell through ligation with antigen-MHC complex of an antigen-presenting cell (APC) is an essential process in the activation of T cells and induction of the subsequent adaptive immune response. Upon activation, the TCR, together with its associated co-receptor CD3 complex, assembles in signaling microclusters that are transported to the center of the organizational structure at the T cell-APC interface termed the immunological synapse (IS). During IS formation, local cell surface receptors and associated intracellular molecules are reorganized, ultimately creating the typical bull's eye-shaped pattern of the IS. CD6 is a surface glycoprotein receptor, which has been previously shown to associate with CD3 and co-localize to the center of the IS in static conditions or stable T cell-APC contacts.

**Purpose:**

**Parental cell:** Jurkat E6.1

**Organism:** Human

**Tissue:** Blood

**Model:**

**Gender:**

**Isotype:**

**Reactivity:**

**Selectivity:**

**Host:**

**Immunogen:**

**Immunogen UNIPROT ID:**

**Sequence:**

**Growth properties:**

**Production details:** Jurkat cell lines stably expressing CD6-LifeAct-YFP were obtained by electroporation using the Neon Transfection System for Electroporation (Invitrogen) according to the manufacturer's guidelines. Shortly, 5\*10<sup>5</sup> Jurkat cells were transfected at 1325 Volt (10 ms, 3 pulses) with 3 µg of DNA in 100 µl Resuspension buffer. After transfection cells were seeded in 2 ml of 1640 RPMI with 10% FCS and 1% U-glut. Antibiotics were added after 3 h. Stable cell lines were sorted on YFP expre...

**Formulation:****Recommended controls:****Bacterial resistance:****Selectable markers:****Additional notes:**

## Target details

**Target:** Cluster of Differentiation 6 labelled with RFP, CD6-RFP

**Target alternate names:****Target background:****Molecular weight:****Ic50:**

## Applications

**Application:****Application notes:**

## Handling

**Format:** Frozen**Concentration:****Passage number:**

**Growth medium:** 1640 RPMI supplemented with 10% Fetal Calf Serum, 1 mM Ultra-glutamine and antibiotics (100 U/ml penicillin, 100 µg/ml streptomycin and 0.25 µg/ml amphotericin B). 500 ng/ml geneticin.

**Temperature:****Atmosphere:****Volume:****Storage medium:****Storage buffer:****Storage conditions:****Shipping conditions:**

Dry ice

## Related tools

**Related tools:** CD6-GFP Jurkat cell line cell line ; CD6-RFP Jurkat cell line cell line

## References

**References:** Meddens et al. 2018. Front Immunol. 9:2333. PMID: 30356797.

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