

TCRseq Well Plate Kit, Human

Used downstream of functional T cell assays on both Berkeley Lights optofluidic platforms, the TCRseq Kit enables recovery of functionally validated T cell receptors (TCRs) from fewer than 10,000 input cells. Instead of re-expressing hundreds of TCRs in the hopes of identifying the rare sequence that imparts ideal specificity, the kit allows users to only sequence the T cells that matter.

TCRseq KIT OVERVIEW

After a T cell functional assay is performed on-chip on either the Beacon® or Lightning™ platform (Figure 1A), single human T cells of interest are selected then exported to a well plate (Figure 1B) for off-chip amplification and ultimate recovery of V(D)J regions of the TCR alpha and beta chain (Figure 1C). The amplified regions can then be indexed and sequenced using

an Illumina MiSeq platform. TCR recovery with the kit has been shown to be above 60% and as high as 78% (Figure 1D). Reagents and protocols are included in the kit for processing up to 192 single human T cells in 2 x 96-well plates. The kit is also compatible with the Opto™ T cell IFN γ Assay.

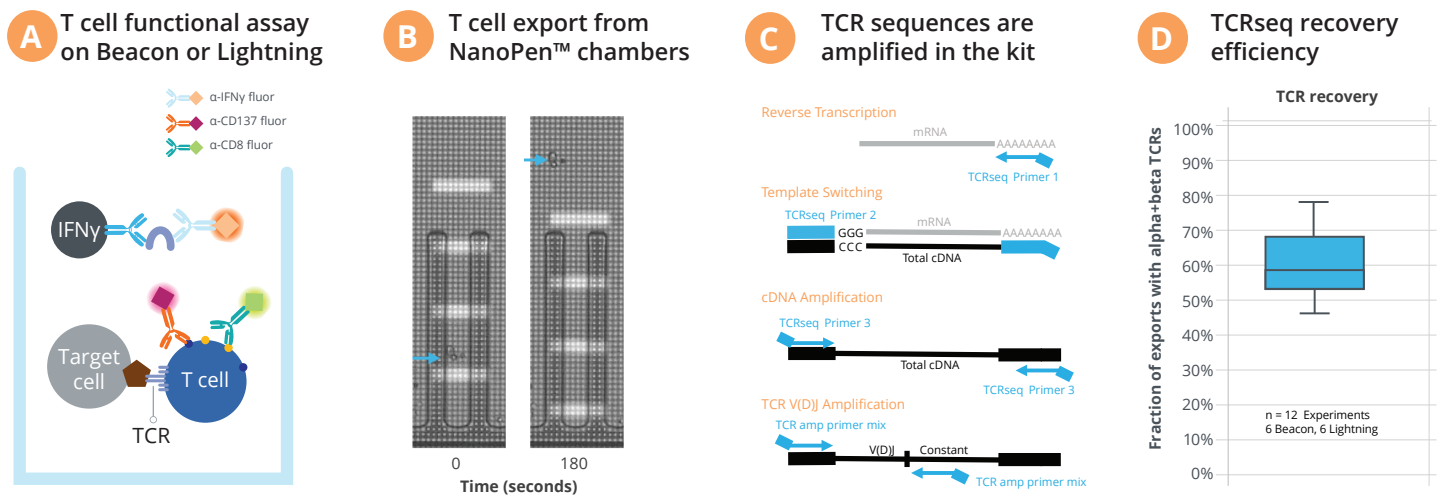


Figure 1. Directly identify, recover, and sequence T cells of interest with the TCRseq Kit enabled by both platforms.

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KIT CONTENTS

DESCRIPTION	UNIT QUANTITY	VOLUME / UNIT	STORAGE CONDITIONS
TCRseq Primer 1	1	230 µL	-80°C
TCRseq Primer 2	1	120 µL	-80°C
TCRseq Primer 3	1	60 µL	-20°C
TCRs Amp Primer Mix	1	90 µL	-20°C
dNTP Mix	1	200 µL	-20°C
RNAse Inhibitor	1	80 µL	-20°C
RT Enzyme	1	20 µL	-20°C
RT Buffer	1	400 µL	-20°C
RT Additive	1	200 µL	-20°C
PCR Enzyme K	5	1000 µL	-20°C

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
750-01001	TCRseq Well Plate Kit, Human
110-08004	Beacon® Platform
110-02407	Lightning™ Platform
750-01000	Opto™ T cell IFNγ Assay Kit

FOR MORE INFORMATION, VISIT
berkeleylights.com/Tcells

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