

Twist Combinatorial Assembly

Expedite Your Cell Therapy Applications

OVERVIEW

With cell therapies emerging as effective immunotherapy technologies, Twist Biopharma is expanding tools for the combinatorial exploration of T cell receptor (TCR) and chimeric antigen receptor (CAR) sequences.

Enabled by our state-of-the-art DNA synthesis platform and library development expertise, Twist's Combinatorial Assembly platform precisely combines selected gene parts for domains of interest to efficiently and accurately assemble diverse TCR and CAR libraries that are customized for your needs.

Partner with Twist to unlock the complete combinatorial variation of sequences for your cell therapy applications.

COMBINATORIAL ASSEMBLY Complete combinatorial diversity of gene length parts delivered as a pool PART 1 PART 2 PART 3 ...

CUSTOM GENE PARTS, SUCH AS:
TCR alpha chains, TCR beta chains,
CAR hinge domains, CAR transmembrane domains,
CAR signaling domains, Antibody variable domains, etc.

ADVANTAGES

- High Diversity: Access up to 10⁴ sequence combinations
- High Flexibility: Insert gene parts up to 1.5 kb in length
- **High Complexity:** Test diversity across multiple elements simultaneously to optimize your design
 - TCR vary alpha and beta chains
 - CAR vary hinge, transmembrane, and signaling domains
 - For antibody variable sequences in CAR ligand-binding domains, Twist's Library of Libraries offers a wide array of scFv and VHH libraries with target flexibility, speed, and fully human sequences
- High Quality: Obtain NGS-verified libraries with over 90% of possible variants present within 10x of the mean for your downstream applications
- High Speed: Secure your combinatorial libraries starting at 8 weeks after custom vector onboarding

DELIVERABLES

 $100\text{--}250~\mu\text{g}$ of endotoxin-free plasmid DNA cloned into the vector of your choice.

