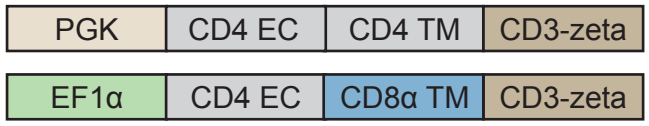
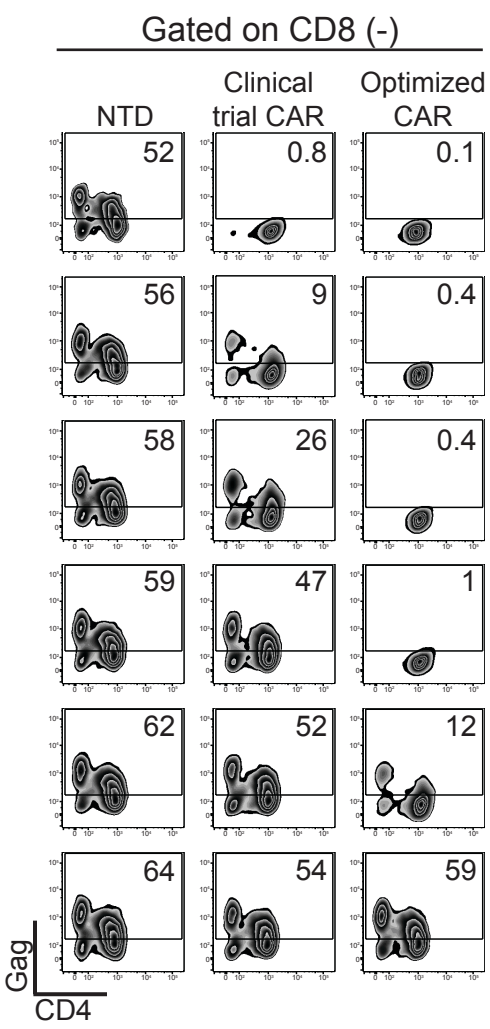
A

Component	Clinical Trial Construct	Optimized Constructs	Functional Impact
Viral vector	murine γ retrovirus (MMLV based)	lentivirus (HIV based)	safety, sustained expression, transduction efficiency
Promoter	PGK	EF1α	sustained expression, higher expression (MFI)
Hinge	none	CD8α	flexibility
Transmebrane domain	CD4	CD8α or CD28	prevent infection, block degradation, dimerization
Costimulatory domains	CD3ζ	CD28-CD3ζ 4-1BB-CD3ζ	survival, proliferation, and effector function
Extracellular domain	CD4	CD4 or ScFv	epitope targeted, prevent infection



B



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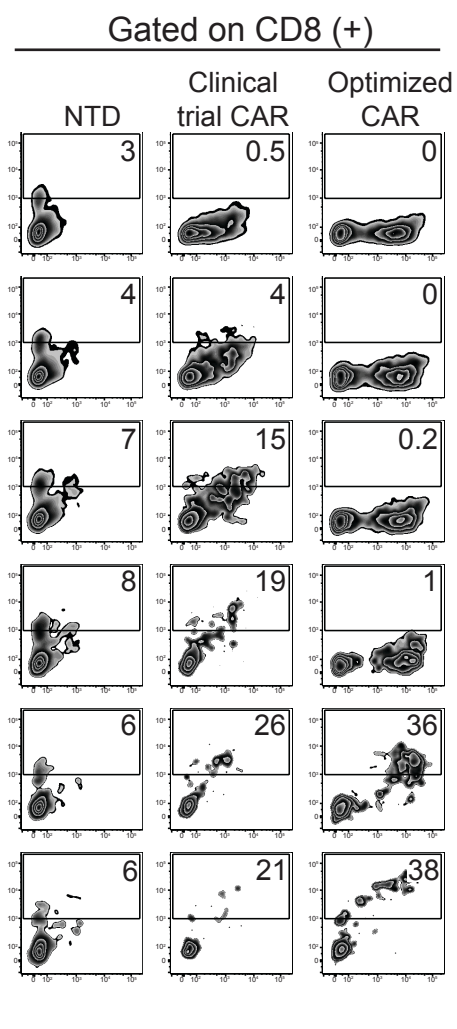
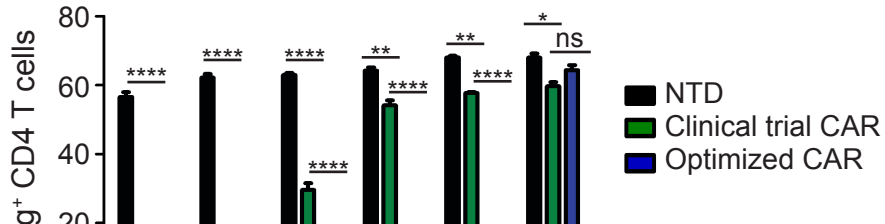
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