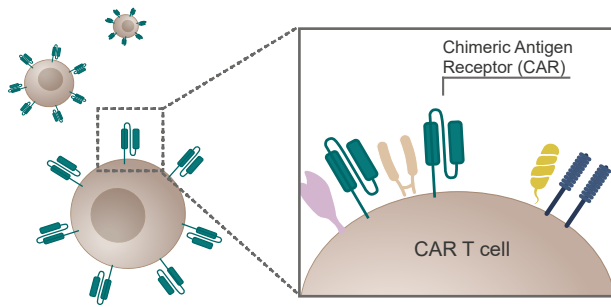




Illuminate the hidden Cell Surface Architecture of your CAR cells



Pixelgen's Proximity Network Assay (PNA) revolutionizes cell therapy by measuring surface protein abundance, colocalization, and clustering at single-cell resolution. PNA provides a spatial map of how surface proteins organize and interact.

Because CAR design shapes receptor clustering, membrane organization, and downstream signaling, mapping this lets researchers link design choices to functional outcomes and uncover predictive biomarkers.

The Pixelgen Proxiome CAR portfolio makes profiling the receptor organization of the most common CAR constructs possible.

The complete toolkit for CAR surface biology

FMC63 antibody

A specific CD19-targeting domain across various CAR T cell products

FLAG antibody

A short peptide sequence that can be added to a CAR to facilitate detection

G4S antibody

A peptide linker commonly used in CARs.

Whitlow antibody

A peptide linker commonly used in CARs.

Is your CAR clustering the way you think it is?

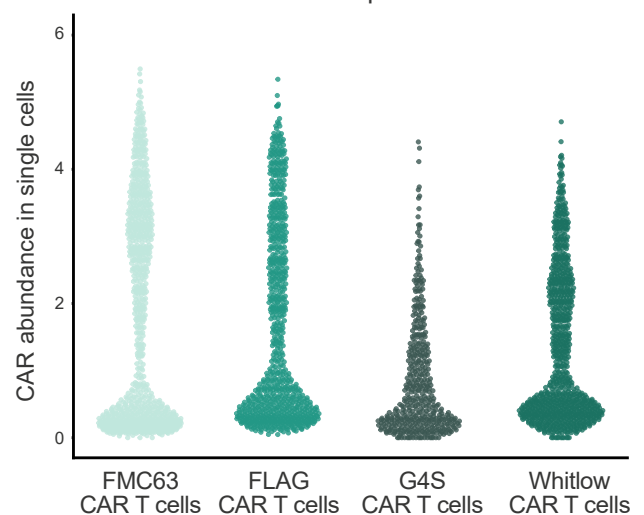
Expression levels only tell part of the reality. How CAR receptors cluster, colocalize and organize on the cell surface directly shapes signaling strength.

Together with the Pixelgen Proxiome Kit, these antibodies map the full surface architecture of CAR cell products and patient samples.

How to use the Pixelgen Proxiome CAR products?

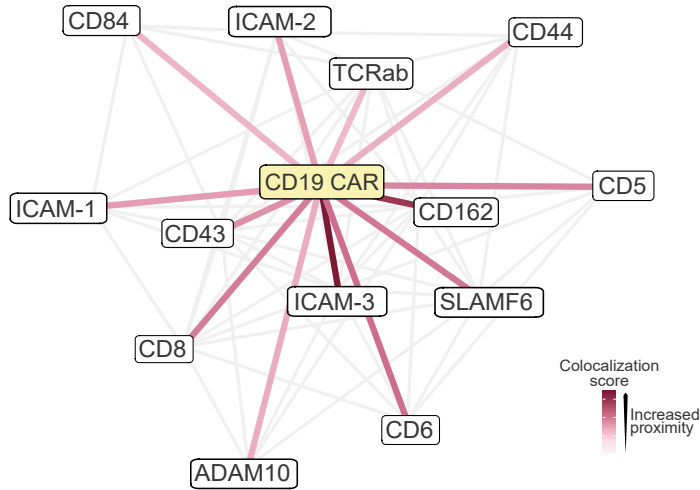
There is no additional workflow required. The anti-FMC63, -FLAG, -G4S, and -Whitlow barcoded antibodies are spiked directly into your existing Pixelgen Proxiome Immuno 155 panel. Use up to two antibodies per experiment to track your specific construct along with the full 155-target panel.

CAR detection in various
CAR T cell products



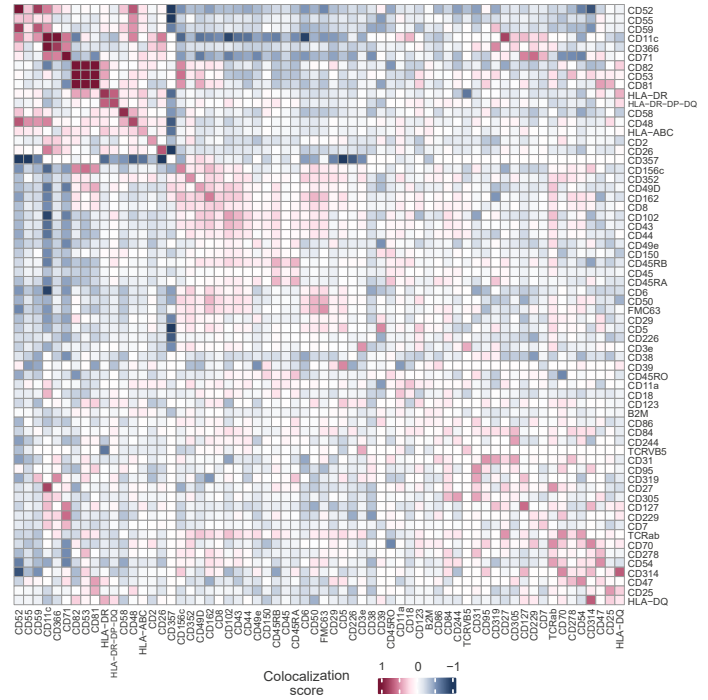
All products allow researchers to gate on CAR+ cells and to perform detailed studies of the local and global surface architecture of the chimeric antigen receptor and 155 additional surface proteins.

The Proximity Network Assay enables studies of the CAR proximo

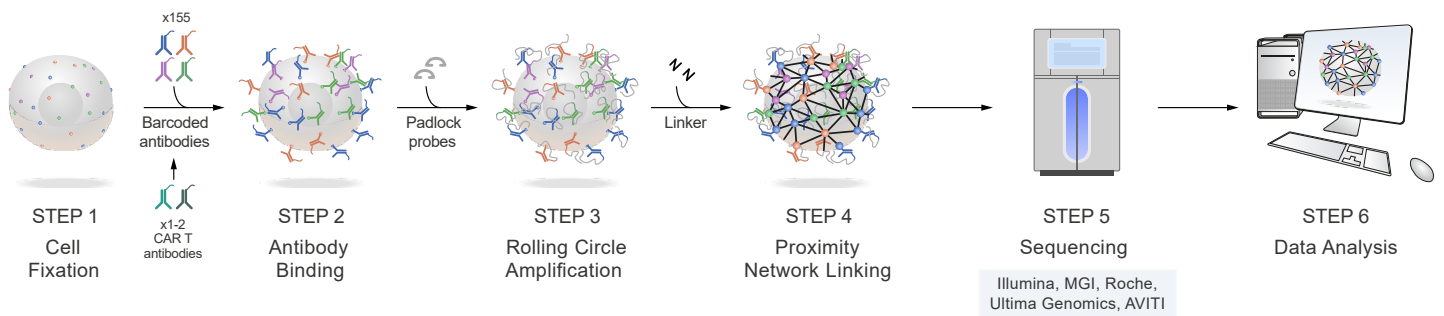


The assay enables detailed characterization of the colocalization partners of individual receptors. The partners of the FMC63-based CD19-targeting CAR can be seen in the network.

Protein interactome of CD19-targeting CAR T cells



The full interactome of individual cell populations can be visualized using a colocalization heatmap.



Workflow of the Proximity Network Assay (PNA)

The Pixelgen Proximo Kit is based on the Proximity Network Assay, a technology for nanoscale spatial analysis of immune cell proteins. Cells in suspension are labelled with barcoded antibodies and amplified *in situ* by Rolling Circle Amplification (RCA). Linker oligos are bound to the RCA products, connecting

neighboring proteins. The connections are read out by standard NGS. Single cell surface maps, Proximity Networks, are reconstructed using the Pixelator analysis pipeline, generating spatial statistics for quantitative analysis of protein abundance and organization across thousands of single cells.

Illuminating the hidden cell surface architecture of CAR cells to power the next generation of cancer therapies

Pixelgen Proximo
FMC63 Barcoded Antibody v2
CAR102

Pixelgen Proximo
FLAG Barcoded Antibody v2
CAR103

Pixelgen Proximo
G4S Barcoded Antibody v2
CAR104

Pixelgen Proximo
Whitlow Barcoded Antibody v2
CAR105

Scan for product page



Spike-in to: Pixelgen Proximo Kit v2 (8, 16, 32 reactions)
PROXIMM0028, PROXIMM00216 and
PROXIMM00232

The products can be also combined
with other custom targets by using
the Pixelgen Proximo v2 Custom
Conjugation Kit

