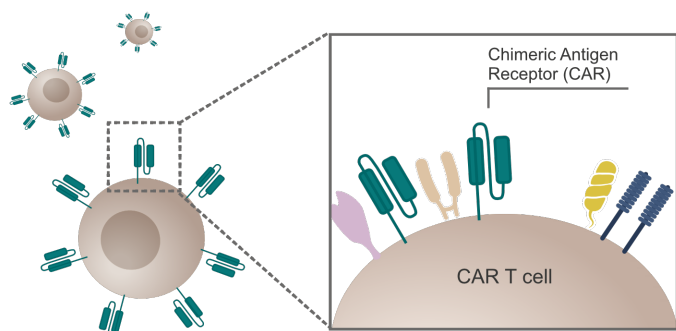


Illuminate the hidden cell surface architecture of your CAR cells



Cell surface protein organization is central to CAR T cell biology, shaping receptor signaling, activation, and cytolytic function.

Pixelgen's Proximity Network Assay (PNA) revolutionizes CAR T cell analysis by enabling single cell profiling of cell surface architecture - capturing which proteins are present, their abundance, and how they are organized. This new layer of biology can help uncover CAR function, and identify resistance mechanisms.

The Pixelgen Proxiome CAR portfolio enables the study of the cell surface architecture in CAR T and NK cells by including FMC63, FLAG, G4S, and Whitlow antibodies.

The complete toolkit for CAR cell profiling

FMC63 antibody

A specific antigen-binding domain of many CD19-targeting CARs

FLAG antibody

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

G4S antibody

The most widely used peptide linker sequence in CARs

Whitlow antibody

A commonly used peptide linker sequence in CARs

From expression to organization

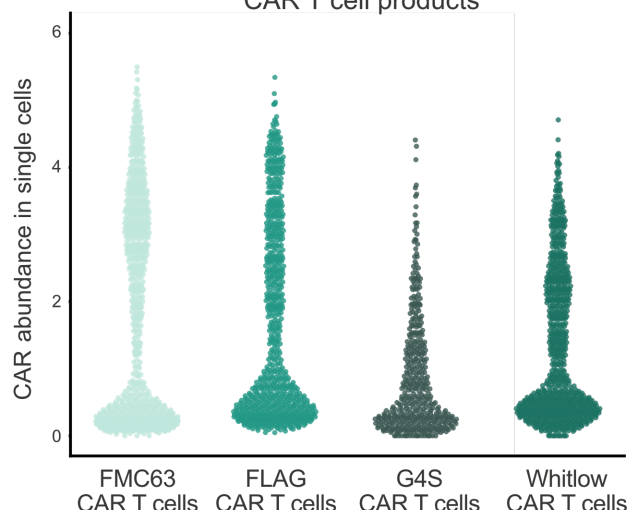
Go beyond conventional CAR T cell phenotyping to uncover how the CAR and other surface proteins are functionally organized. Connect membrane architecture to CAR T cell fitness, mechanisms of response and resistance, and identify new spatial biomarkers.

Together with the Pixelgen Proxiome Kit, the Pixelgen CAR antibody portfolio maps the full surface architecture of CAR cell products and patient samples.

How to use the Pixelgen Proxiome CAR products?

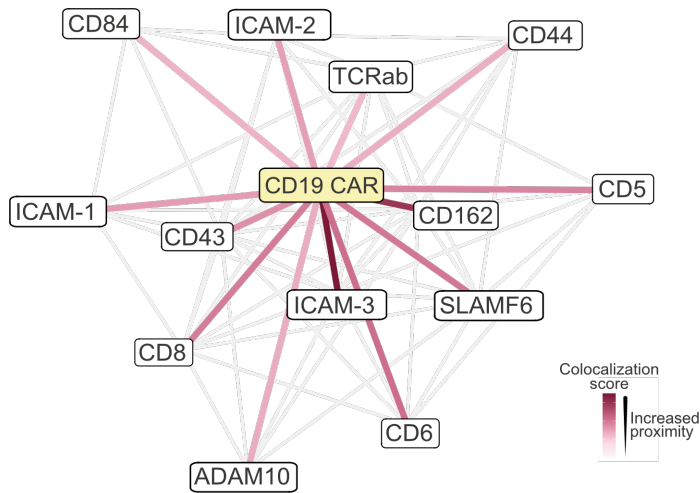
There is no additional workflow required. The FMC63, FLAG, G4S, and Whitlow barcoded antibodies are spiked directly into your existing Pixelgen Proxiome Immuno 155 panel. Use up to two antibodies per experiment to track your specific constructs along with the full 155-target panel.

CAR detection in various
CAR T cell products



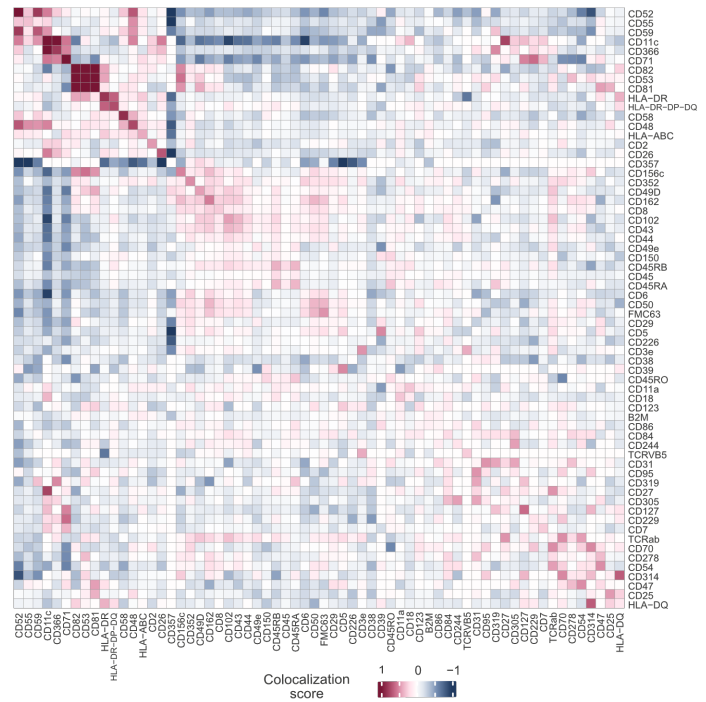
All Pixelgen CAR products enable robust separation between CAR+ and CAR- cells for further downstream analysis of the population of interest.

The Proximity Network Assay enables studies of the CAR proxime

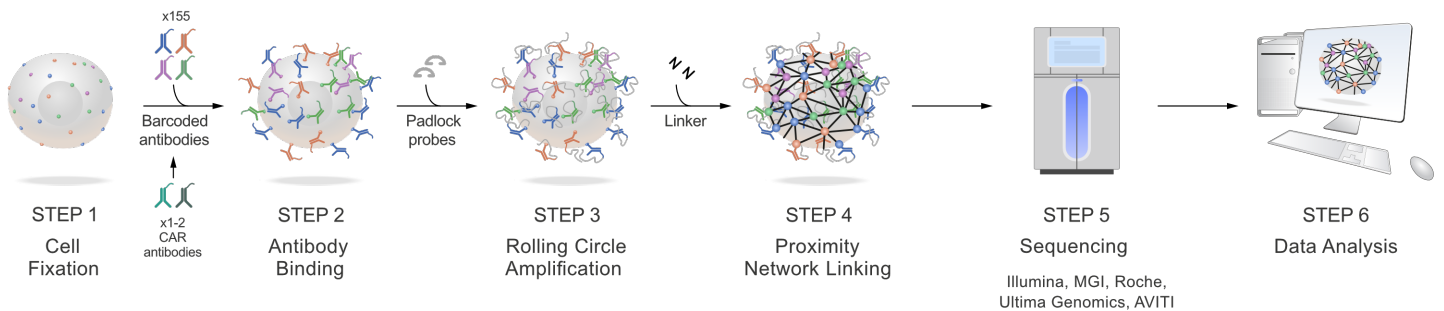


The assay enables detailed characterization of the colocalization patterns of individual receptors. The interaction partners of the FMC63-based CD19-targeting CAR can be seen in the network.

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 Proxime 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.

Pixelgen Proxime
FMC63 Barcoded Antibody v2
Catalog No. CAR102

Pixelgen Proxime
FLAG Barcoded Antibody v2
Catalog No. CAR103

Pixelgen Proxime
G4S Barcoded Antibody v2
Catalog No. CAR104

Pixelgen Proxime
Whitlow Barcoded Antibody v2
Catalog No. CAR105

Scan for product page



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

The Pixelgen Proxime CAR products can be combined with other custom targets using the Pixelgen Proxime v2 Custom Conjugation Kit

