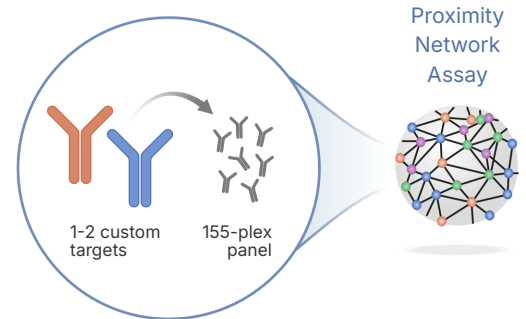


# Extending the Cell Surface Architecture Analysis

## Integrate your favorite target proteins

- **Tailored design** - Customize the Proximity Network Assay by including antibodies against surface proteins of your choice
- **High multiplex** - 1-2 custom antibodies, in addition to the 155 cell surface markers included in the Immuno 155 v2 panel
- **Multiple readouts** - Measure the abundance, clustering and colocalization of your custom target proteins and all other 155 markers



### Pixelgen Proxiome v2 Custom Conjugation Kit

2 x mouse IgG1

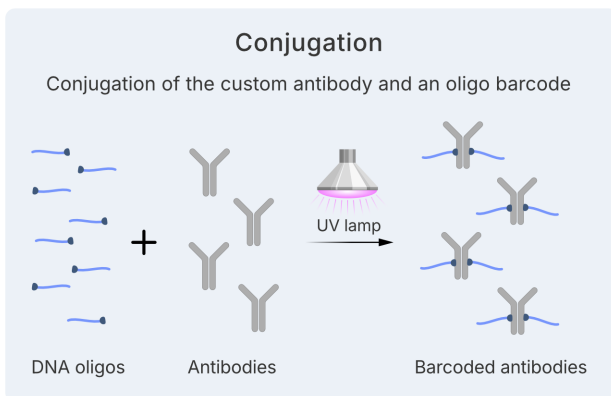
Part nr.: PROXCUST001

2 x other host/subclass

Part nr.: PROXCUST002

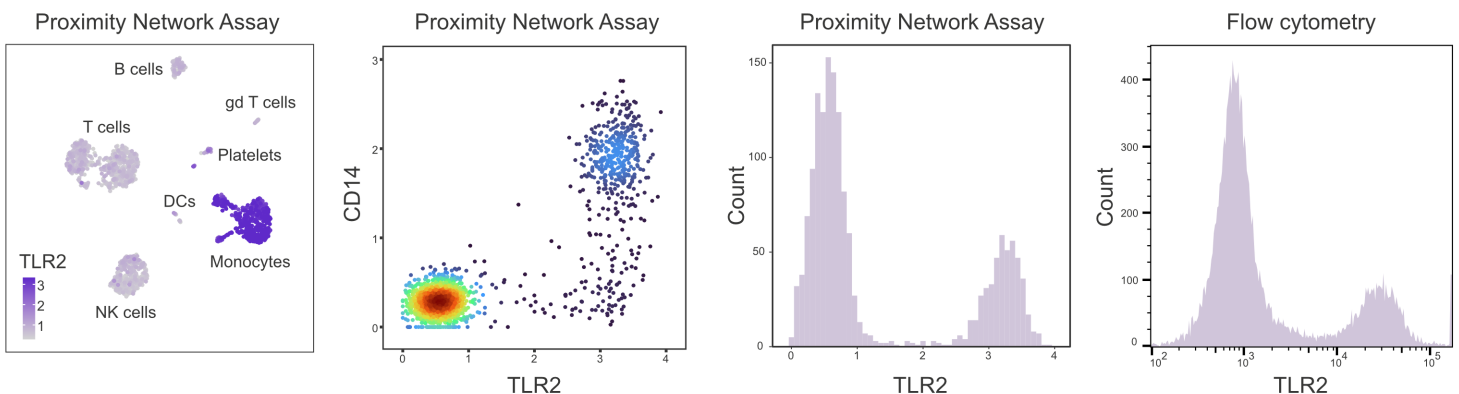
1 x mouse IgG1 and 1 x other host/subclass

Part nr.: PROXCUST003



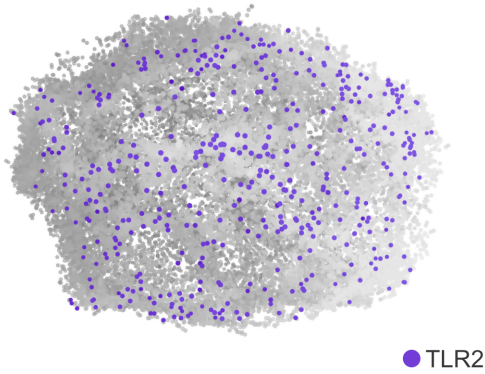
**1-2 custom antibodies** can be integrated into the PNA assay, enabling tailored protein analysis using the Pixelgen Proxiome Kit.

**Custom antibodies** are first validated on fixed samples using standard flow cytometry, followed by conjugation to DNA oligo barcodes. Once barcoded, the antibodies can be seamlessly spiked into the 155-plex PNA panel.

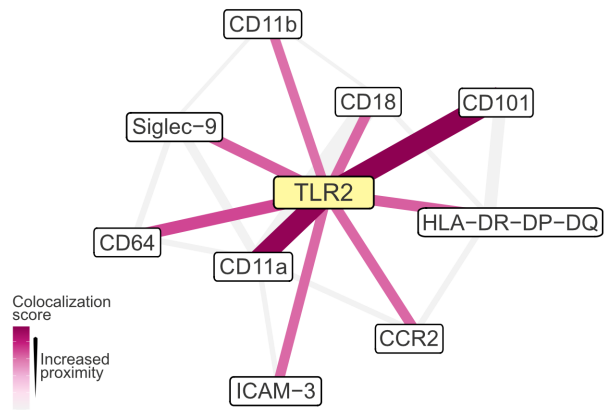


In this example, the toll-like receptor 2, TLR2 (CD282), was targeted using an anti-human TLR2 antibody (clone W15145C). The validated and barcoded antibody was incorporated into the Pixelgen Proxiome Kit v2 workflow as a custom spike-in reagent. PNA analysis enabled clear TLR2 detection in monocytes, with positive and negative populations closely matching the initial flow cytometry analysis.

Visualize your protein of interest:  
TLR2 distribution on a monocyte



Identify protein interactions:  
Colocalization network of TLR2



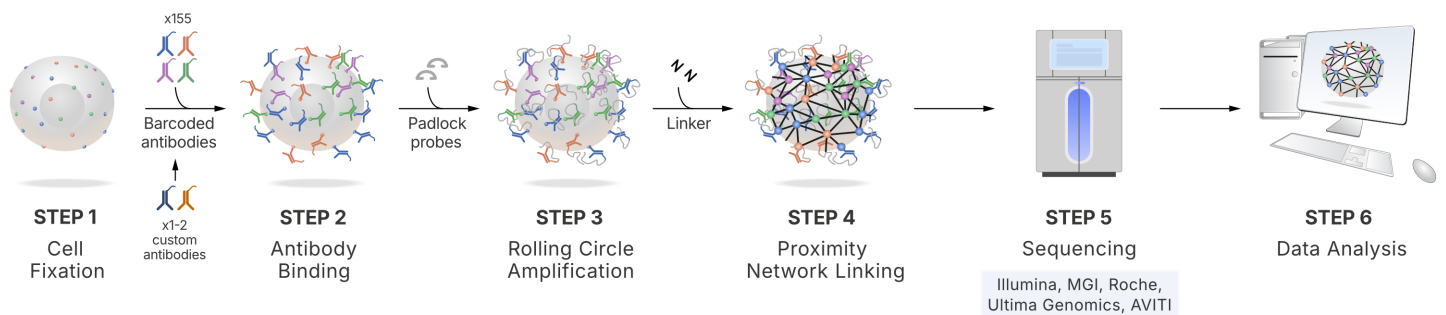
The custom target can be **directly visualized** on individual cells in 3D, enabling assessment of protein expression patterns and spatial organization across the cell surface.



Compatible with **monoclonal** antibodies of various antibody species and isotypes including **mouse, rabbit and human**.

See the full list at the product page.

To gain **mechanistic understanding** of receptor regulation, the specific colocalization profile of your custom target can be assessed. This includes the identification of functional membrane domains and interacting proteins. Mapping these local protein interaction networks provides critical insight into receptor function, regulation, and cell-state specific signaling.



## Workflow of the Proximity Network Assay (PNA)

The Pixelgen Proxiome 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 Proxiome v2  
Custom Conjugation Kit,  
2 x mouse IgG1  
PROXCUST001

Pixelgen Proxiome v2  
Custom Conjugation Kit,  
2 x other host/subclass  
PROXCUST002

Pixelgen Proxiome v2  
Custom Conjugation Kit,  
1 x mouse IgG1 and 1 x other host/subclass  
PROXCUST003

Scan for product page



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

The products can be  
combined with the  
**Pixelgen Proxiome  
CAR T products**

