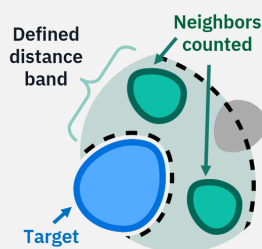


Phenoplex now offers advanced spatial interactive data analysis tools

The spatial information allows scientists to investigate neighborhoods and distances of specific cell populations to each other to decode the complexity of tissue microenvironments in normal and disease states. Especially in immune oncology the neighborhood composition of tumor and immune cells is important to fully understand cell interactions to develop novel precision diagnostics.

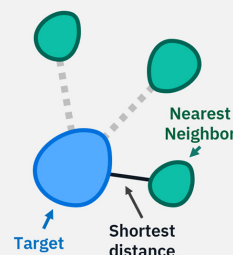
The Phenoplex workflow now includes hypothesis-driven spatial analysis options for cellular proximity counts of neighboring cells and nearest neighbor distance calculations. Using our intuitive workflow, users can define the target cells and interrogate their neighbors within a defined radius.

Neighbor count within specific distance band

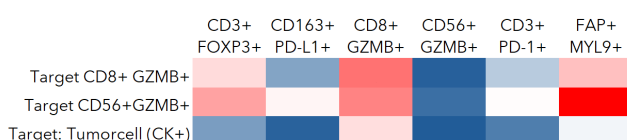
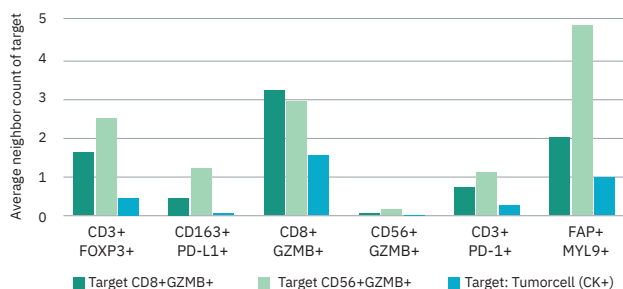


Set defined distance bands (dotted line) around your selected target cell (blue). Phenoplex will quantify all specified neighbors (green) inside this radius and generate mean, median and min/max readouts. Different distances can be set for different neighbors.

Nearest neighbor analysis



Set your target (blue) in any ROI and receive comprehensive statistical analysis about the distances of the respective nearest neighbors (green) for each target cell. Define a maximum distance to limit the search for a nearest neighbor.



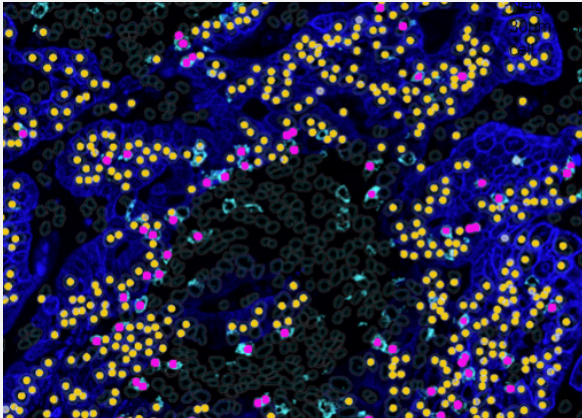
Know which cells are interacting

Understanding the tissue context of specific cellular populations provides insights into cellular niches. Knowing which cells interact can be of high importance in immune oncology.

Use our intuitive visualization tools to get an easy overview of neighborhood relationships.

Displayed on the left: Which target has the most neighbors of those specific cell populations within the specified radius?

Interactive exploration of neighbor quantifications



Review the selected targets (yellow, here: CD8+GZMB+) and their respective neighbors (magenta, here: CK+) within 30µm radius around each target cell. Visible layers: Cyan = CD8, dark blue = CK

Mean	Distance To From Target to Nearest Neighbor [µm]					
Calculate						
Filter By:	Distance To Nearest Neighbor [µm]					
30-plex_human_FFPE_CRC_ka						
Save						
	CK (MV - C17D) Max: 250µm	CD8 (MV - NUJ) anonym8 (MV CELL) Max: 250µm	CD56 (MV - NUJ) anonym8 (MV CELL) Max: 250µm	CD3 (MV - NUJ) anonym8 (MV CELL) Max: 250µm	CD68 (MV CELL) D-11 (MV - C17D) Max: 250µm	CD45 (MV CELL) ZB1 (MV - NUJ) Max: 250µm
CD8 (MV - NUJ) Granzyme8 (MV CELL) inside Stroma, Tumor	27.2	24.5	72.7	32.0	74.5	94.4
CD56 (MV - NUJ) Granzyme8 (MV CELL) inside Stroma, Tumor	52.1	80.1	14.4	83.4	87.7	118.3
CD34 (MV - NUJ) inside Stroma, Tumor	63.6	96.5	61.1	62.0	100.7	114.1

The fully interactive table shows the mean counts for each neighbor (columns) around the targets (rows). The view also allows to show mean with standard deviation or min - max values of counts or distance values. Export the tables through an easy copy and paste action to Excel or any other data analysis tool to generate figures of your results.

Phenoplex™

Multiplex users deserve analysis software designed for multiplex images. Phenoplex is a complete workflow software for multiplex tissue images, built on Visiopharm's best-in-class AI, with interactive verification steps throughout. Make new discoveries, compare between cohorts, or reproduce previous results. Phenoplex's comprehensive workflow lets you rapidly confirm observations, no matter the 'plex level, so you can move on to the next multiplex experiment.

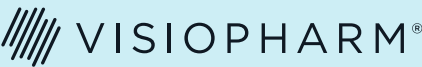
Visiopharm

We are a leading provider of AI-driven precision pathology software for research and diagnostics.

In research, we are a technology leader providing tools that help scientists, pathologists, and image analysis experts produce accurate data for all types of tissue-based research.

In diagnostics, we are a leader within clinical applications, with no fewer than nine diagnostic algorithms cleared under IVDR for EU/UK customers. These applications provide diagnostic decision support and can be easily activated and integrated into existing lab workflows.

Founded in 2002, we are privately owned and operate internationally with over 750 customer accounts in more than 40 countries. Our headquarters are located in Denmark's Medicon Valley, with legal entities in Sweden, the UK, Germany, the Netherlands, and the United States, and local representation in France and China.



Visiopharm A/S
Agern Allé 24
2970 Hørsholm, Denmark
visiopharm.com

For research use only.
Not for use in diagnostic procedures.



Learn more