

CLEARLIGHT BIO

Lab Services

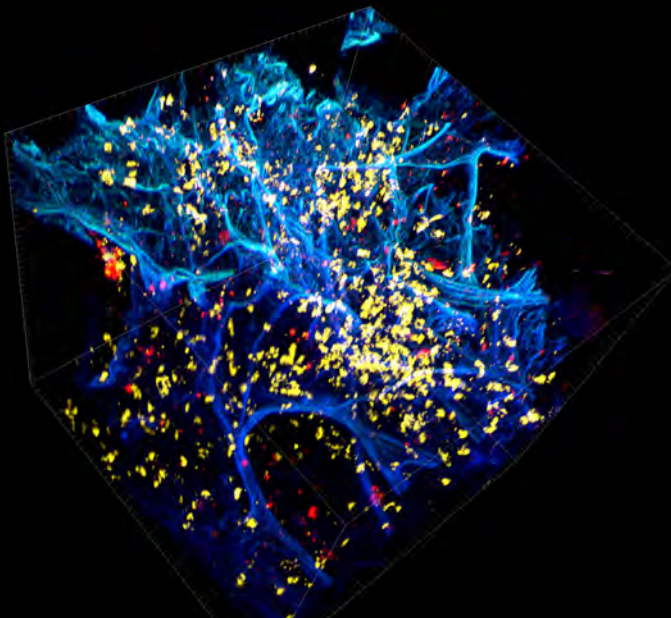


“Thank you so much for all the work! We are greatly satisfied with the quality and responsiveness to our additional requests for processing, file sharing, etc. Great to work together.”

Amanda, PhD,
- Scientist at Biotech Startup



SEE MORE BIOLOGY



SERVICES

ClearLight provides tissue processing, imaging and analysis services to academic, biotechnology, & pharmaceutical researchers. Preclinical researchers who work with us gain a better understanding of the tissue and tumor microenvironment. CLARITY is the foundation of ClearLight's lab services.

3D IHC

- Immunostain deep into the cleared tissue
- Multiplex with 3 immunostains + DAPI nuclear counterstain
- Deep imaging fluorescent microscopy
- 3D image analysis of microenvironment

Tru3D® Tissue Analysis

ClearLight's technology is constantly evolving to evaluate 3D relationships within volumes of diseased or normal tissues. Tru3D analysis software will be able to process image files of multiplex IHC stained tissues and analyze the tissue sample in 3D.

CLARITY TISSUE CLEARING

CLARITY is an acronym for **C**lear **L**ipid-exchanged **A**crylamide-hybridized **R**igid Imaging / **I**mmunostaining / **i**n situ-hybridization-compatible **T**issue **h**ydrogel)

DESCRIPTION

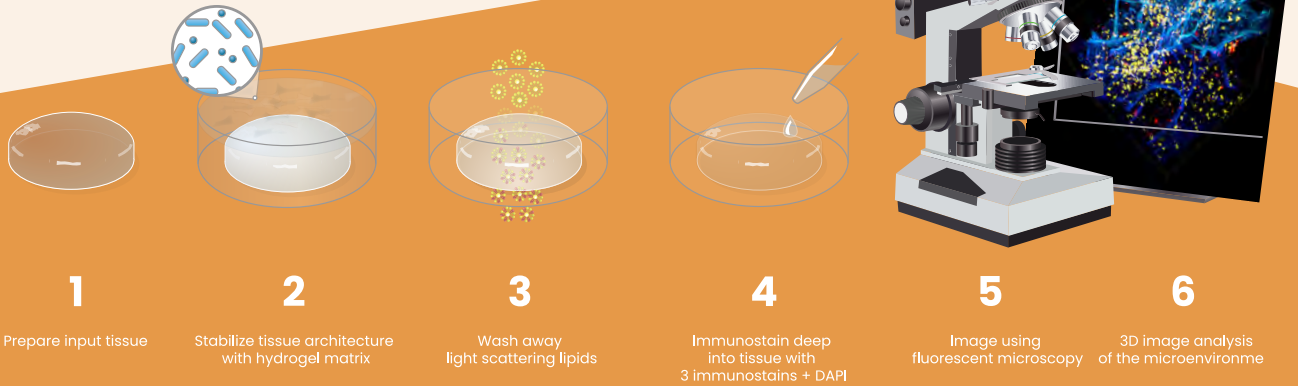
CLARITY Tissue Clearing is the foundation of ClearLight's tissue processing workflow. In the CLARITY method, a tissue sample is first embedded in a hydrogel. This hydrogel provides a three-dimensional matrix that supports the tissue sample and retains the structural integrity and spatial orientation of the critical tissue components.

The non-critical elements such as light-scattering lipids are removed using detergent solutions. Light can then penetrate the tissue sample rendering it "see-through" or transparent.

CLEAR

STAIN

IMAGE



WORKFLOW

In the CLARITY tissue clearing method, the tissue is first embedded with hydrogel monomers to create a matrix scaffold. The light scattering lipids are removed, and the sample is immunostained prior to imaging. Lipid clearing enables clear imaging deeper beyond the surface level of the tissue –hydrogel hybrid sample.



IMAGING

We use confocal or light-sheet microscopy depending upon the tissue type and research question involved.

ClearLight has built upon the original CLARITY protocol through reagent optimization, developing an expertise in thick tissue immunostaining penetration, and expanding CLARITY beyond the brain to include spheroids, organoids, eye, lymph nodes, skin, bone, kidney, liver, tonsil and other animal tissues.

Learn more about ClearLight Lab Services:

<https://clearlightbio.com/services>

AUTHORIZED RESELLER

For a complete list of resellers:
clearlightbio.com/how-to-buy



ABOUT US

Founded by Karl Deisseroth M.D., Ph.D., ClearLight Biotechnologies provides pharmaceutical, biotechnology, and academic researchers with CLARITY Tissue Clearing, 3D immunostaining, and Tru3D image analysis services. ClearLight technology is based on the CLARITY lipid-clearing technique developed by Dr. Deisseroth and colleagues at Stanford University. This technology, paired with proprietary 3D image analysis software in development, empowers researchers to “See More Biology” within the tissue microenvironment. ClearLight Bio is developing technologies to improve diagnostic, prognostic, and predictive treatment of disease so we can all live healthier lives.

CONTACT US

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