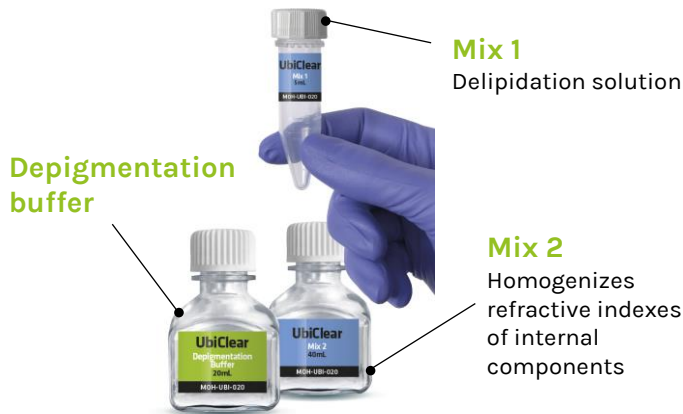


UbiClear

The fastest solution for biological sample clearing



UbiClear is a novel fast clearing method rendering thick biological tissues transparent for deep imaging while keeping their structure and fluorescent labels intact.

Formulated without any harmful solvents or expensive components, it is designed to make clearing safe and accessible even when working in large volumes.

Key features



Versatile

- 3D cell structures
- Thick sections (soft & hard mammalian tissues)
- Whole organs
- Organisms
- Plants & seeds



Non-toxic



Ultra-fast

< 30 min for 1 mm thick sections



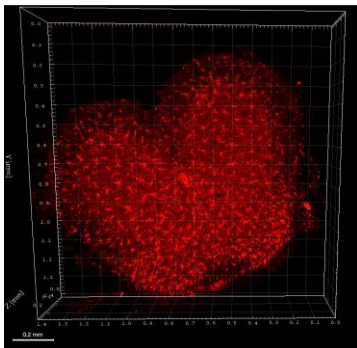
Compatible with fluorescence labelling

How does it work ?



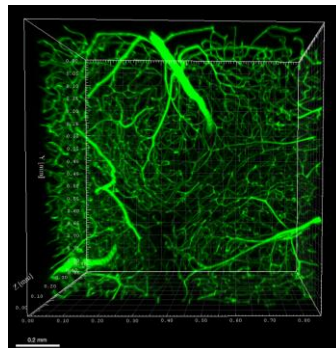
Results

- Experience high-quality deep tissue imaging -



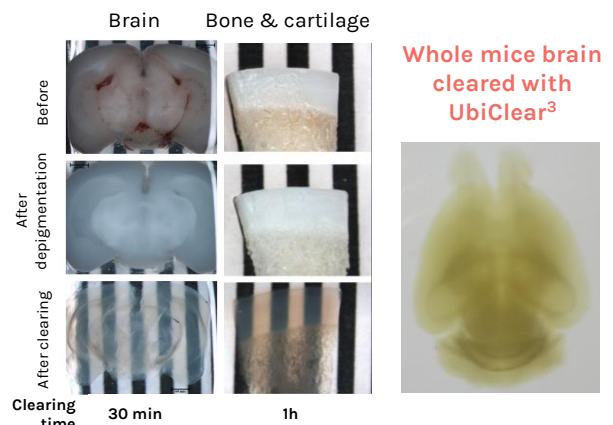
Mapping Iba1 expression in a cleared mouse spinal cord

Immunofluorescence was performed on a 500µm thick mouse spinal cord section after depigmentation using a Cy3 secondary antibody. Image acquired using an Axio LSM710 (Zeiss) confocal microscope with 10XNa0.3 WD 5mm air objective, zoom 0.6 in 270µm depth and z 2µm. 3D reconstruction was performed using Imaris viewer software (Oxford Instruments).¹



Imaging deep blood vessel networks in mouse cerebellum

A 500µm cerebellum slice from mice perfused with FITC-albumin was cleared without depigmentation and imaged using an Axio LSM710 (Zeiss) confocal microscope with 488nm laser and 10XNa0.3 WD 5mm air objective, in 508µm depth and z 4µm. 3D reconstruction was performed using Imaris viewer software (Oxford Instruments).²



Ultra-fast clearing of diverse mammalian tissues

1mm thick mice brain slices (fat tissue) and 1mm thick ox knee slices were cleared using UbiClear and imaged on a striped target.¹

¹Brigitte Delhomme & Martin Oheim (CNRS, SPPIN UMR8003, Paris, France)

²Mouse painting vessels: X.Bai (University of Saarland, Homburg (DE)), Clearing: F.Licata (UMS Paris-cité University (France), B.Delhomme & M.Oheim (CNRS, SPPIN UMR8003, Paris, France)

³Brigitte Delhomme & Marwa Moulzir (CNRS, SPPIN UMR 8003)

A technology developed by Brigitte Delhomme & Martin Oheim (SPPIN-CNRS UMR 8003, Université Paris Cité, France) and used in the following publication:

Hazart D, Delhomme B, Oheim M and Ricard C (2023) Label-free, fast, 2-photon volume imaging of the organization of neurons and glia in the enteric nervous system. Front. Neuroanat. 16:1070062. doi: 10.3389/fnana.2022.1070062.