

FocusClear™

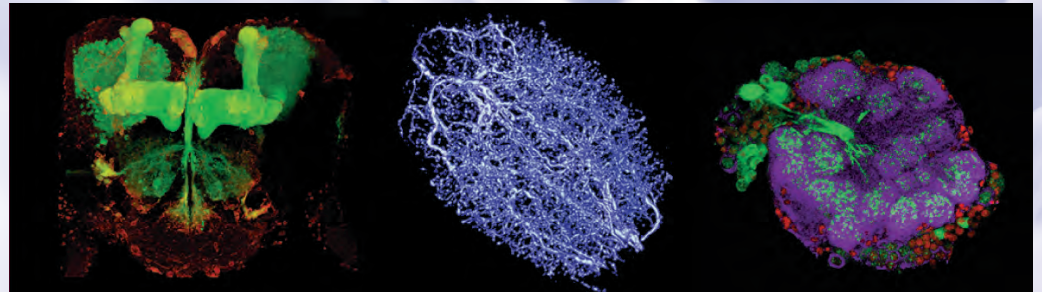


A water-soluble clearing agent that increases the transparency of biological tissues.

- Allows for visualization of internal objects up to 500µm below the tissue surface.
- Increases depth of view by at least 2X over traditional glycerol-based mounting media.
- Increases the efficacy of laser excitation and optical signal detection of either color or fluorescence.
- Suitable for immunofluorescence-labelled single cells and tissues, *in situ* hybridization, tissue or whole-mount immunohistochemistry and fluorescence protein samples.

...makes specimens transparent...

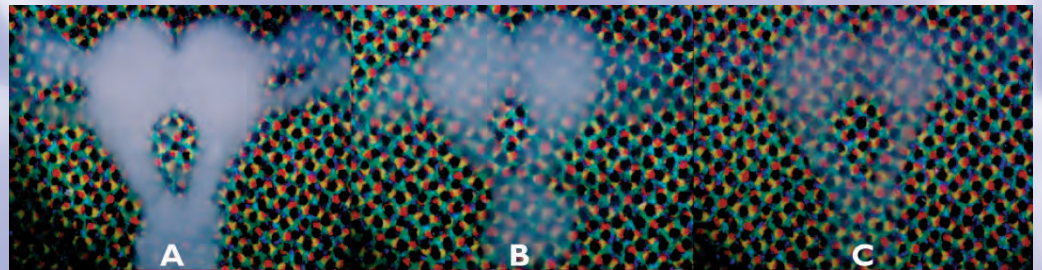
American cockroach (*Periphera americana*) brain tissues of approximately 1000µm thick. Brains were dissected and immediately fixed in 4% paraformaldehyde for 6 hours. Then, 1% Triton X-100 was applied for permeating the brain tissues overnight. Subsequently, the brains were cleared in PBS, FocusClear™ or Glycerol for 1 hour and visualized under a dissection microscope.



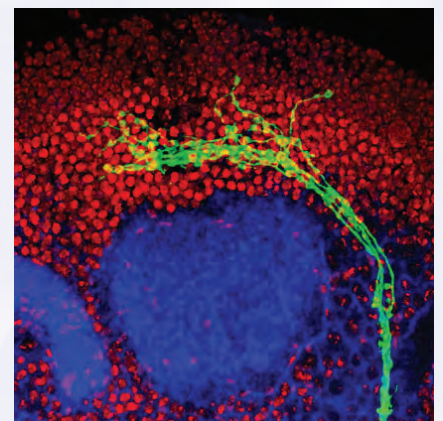
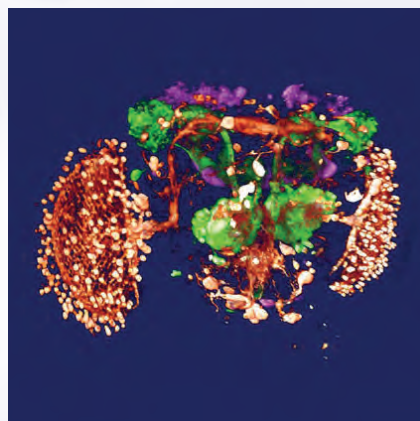
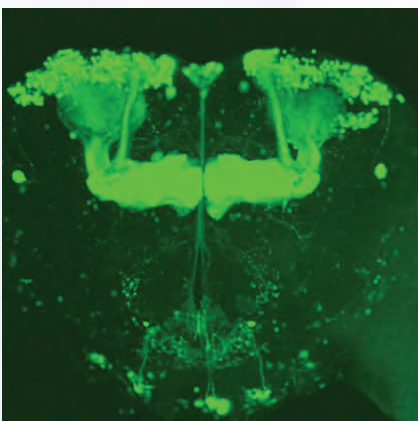
A simple way to clear a tissue of 1000µm thick...

Results:

- A)** incubation in PBS;
B) Incubation in saline containing 80% glycerol;
and **C)** incubation with FocusClear™.
The degree of brain transparency is evaluated by the visibility of the underneath colour grids in a dissecting microscope. Bar = 1mm.



FocusClear™ is a non-toxic, ready-to-use, and water-soluble clearing agent for enhancing the transparency of cross-linking agent-fixed biological specimens with a clearing effect that is able to reach a depth of up to 500 microns below the specimen surface. Use of FocusClear™ will significantly increase the effectiveness of laser excitation and detection of colour and fluorescence. Obtained microscopic image quality will be greatly improved. Samples labeled with fluorescence and non-fluorescence dyes (including lipophilic dyes, such as DiI, DiD and NBD-ceramide) can be directly transferred from water, buffer solutions, alcohol, DMSO, DMF, or glycerin into FocusClear™ solution. FocusClear™ is always liquid so there is no need to aliquot, mix, centrifuge or keep frozen. It allows easy and universal production of preparations and can be stored at room temperature.



MountClear™

MountClear™ is a mounting reagent that has been specially designed for mounted FocusClear™ specimens.

It is non-fluorescent, quick clotting and anti-queching. MountClear™ is a gel when stored at room temperature and must be re-liquefied by a 55°C water bath for 30 minutes before use. Mounting by other embedding media usually results in the “re-cloudiness” of FocusClear™ -cleared specimens and is therefore not recommended.

Immersion Solution-M

Immersion Solution-M has a refraction index matching that of MountClear.™

It is designed to avoid the deformation of the observed images and can be applied onto oil or water immersion objectives.

Description	Size	Cat. #
FocusClear™ kit: Includes 5ml each of FocusClear™, MountClear™, & Immersion Solution-M components separately...	EA	F101-KIT
FocusClear™	5 ml	FC-101
MountClear™	5 ml	MC-301
Immersion Solution-M	5 ml	IS-502

NEW: Larger Sizes Now Available!

Description	Size	Cat. #
FocusClear™ kit: Includes 50ml each of FocusClear™, MountClear™, & Immersion Solution-M components separately...	EA	F102-KIT
FocusClear™	50 ml	FC-102
MountClear™	50 ml	MC-302
Immersion Solution-M	50 ml	IS-503

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