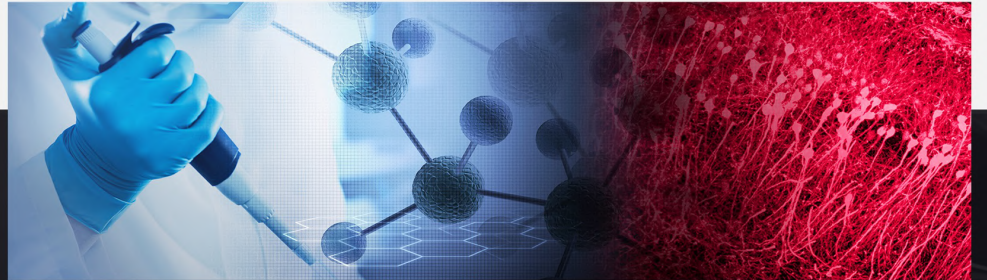




Tech Note

Effect of SDS Removal Solution



SDS Removal Solution Test

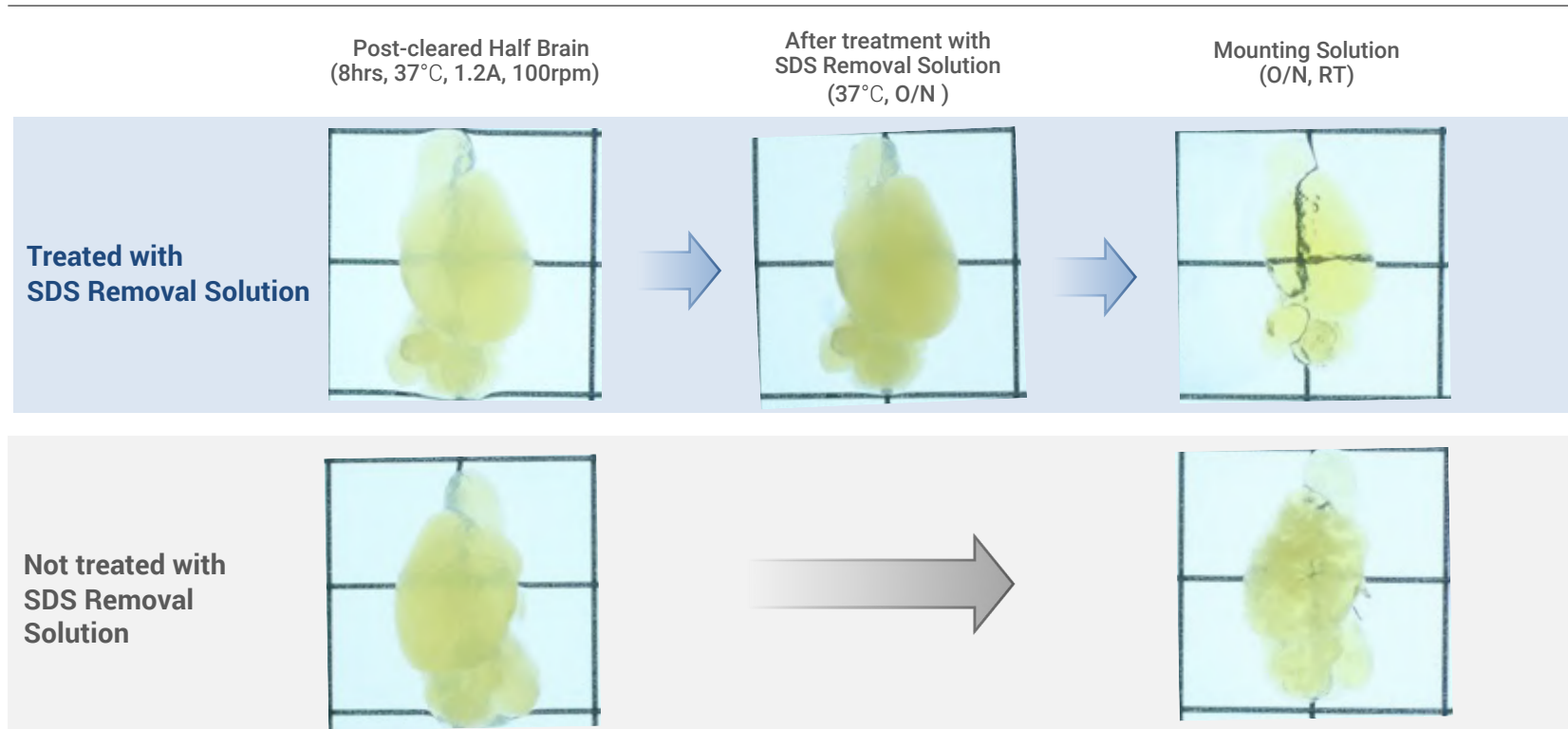
Introduction

As an all-in-one solution for easy electrophoretic tissue clearing, the X-CLARITY™ Tissue Clearing System is designed to accelerate the removal of lipids as part of its tissue clearing process. During routine protein electrophoresis deeply infiltrated SDS-based residues will remain. For optimal 3D imaging, it is necessary to remove the SDS-based residue.

Logos Biosystems offers its *SDS Removal Solution*. This is a unique reagent for removing deep infiltrated SDS-based residues from post-cleared tissue specimen.

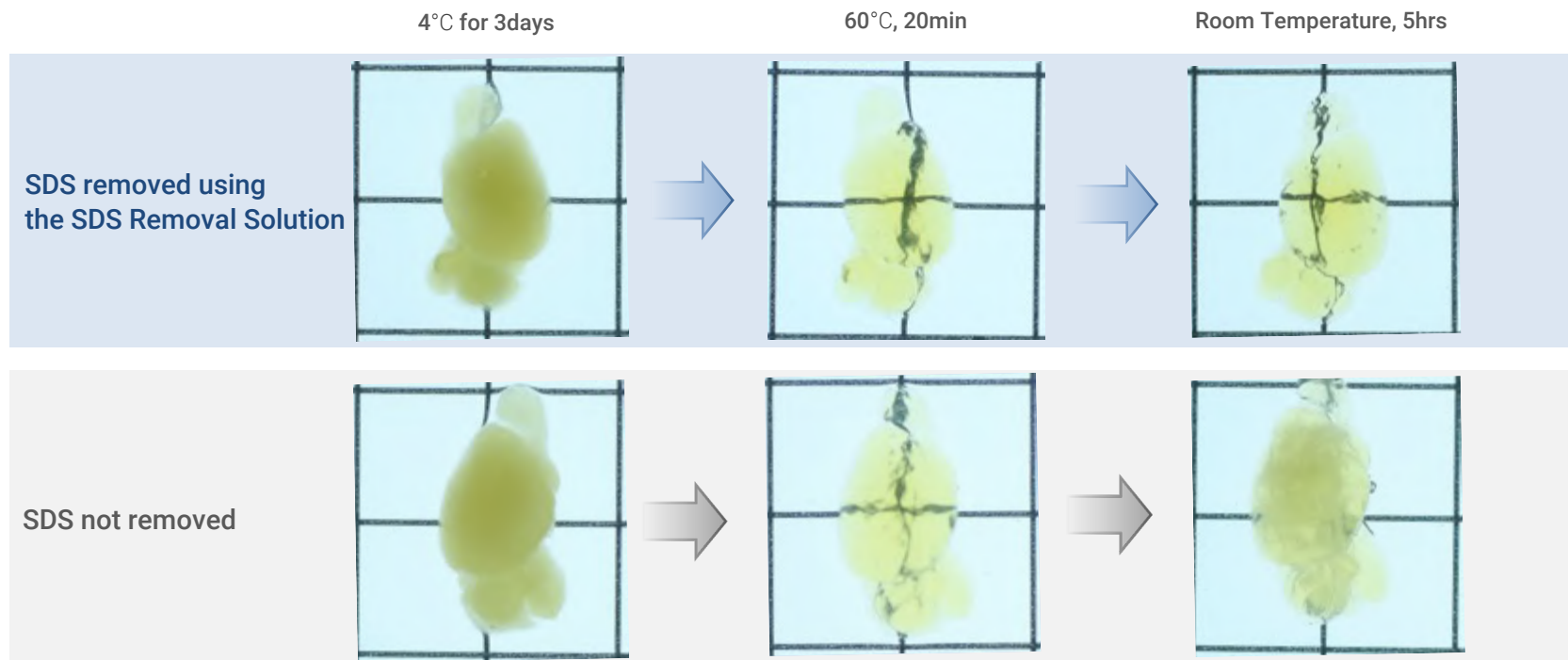
For this technical note, the effects of the *SDS Removal Solution* was demonstrated by comparing brain tissue samples treated with the *SDS Removal Solution* versus brain tissue samples that were not treated with the *SDS Removal Solution*.

SDS Removal Solution Test



- Post-Cleared brain tissue samples are shown above. The top row identifies the brain tissue sample treated with the *SDS Removal Solution*. The second row identifies the brain tissue sample that was not treated with the *SDS Removal Solution*.
- Both treated and non-treated brain tissue samples were incubated in Mounting Solution. After incubation with Mounting Solution was complete, many opaque areas were found in the non-treated sample compared to the treated sample.
- The large number of opaque areas in the non-treated sample will be problematic for 3D imaging and capturing optimal images.

Sample transparency in Mounting Solution over different conditions



- To test sample transparency in different conditions, both post-cleared tissue samples (treated with *SDS Removal Solution* and not treated) were incubated in Mounting Solution and stored at 4°C for 3 days. The results showed that both samples became opaque.
- Temporal heating to 60°C made both samples transparent again. However, only the sample treated with the *SDS Removal Solution* remained transparent during storage at room temperature.
- In conclusion, the *SDS Removal Solution* test showed that by removing SDS-based residue from the post-cleared sample, the specimen was able to maintain optimal transparency even when conditions changed during the Mounting Solution process.

Find out more at https://logosbio.com/tissue-clearing_3d-imaging/tissue-clearing/x-clarity