

Tech Note

Effect of SDS Removal Solution

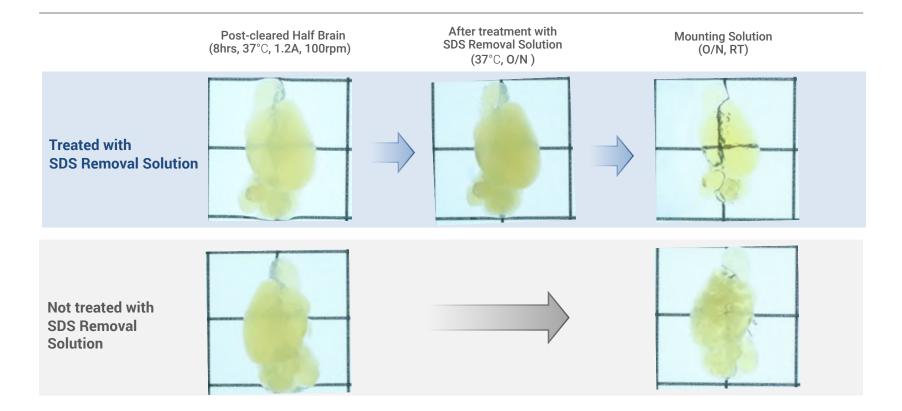


Introduction

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.

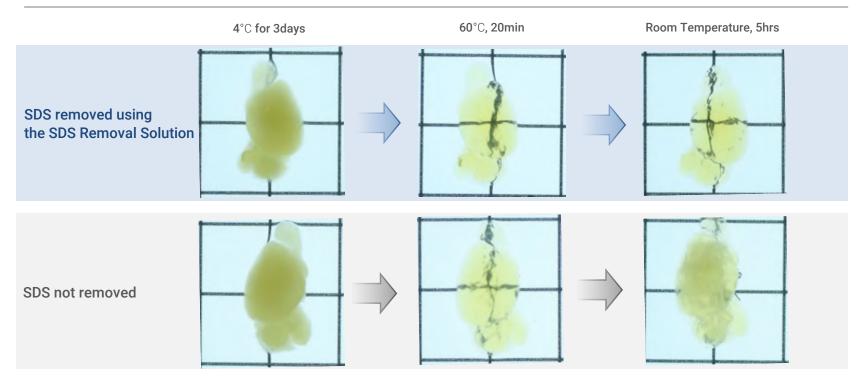
Logos Biosystems offers its *SDS Removal Solution*. This is a unique reagent for removing deep infiltrated SDS-based residues from post-cleared tissue specimen.

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.



- 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.

 $\textbf{Find out more at } \underline{\text{https://logosbio.com/tissue-clearing_3d-imaging/tissue-clearing/x-clarity} \\$