

Opal Storage and Stability

LYOPHILIZED

Lyophilized Opal fluorophores (Opals) are extremely stable long-term when stored in the dark at -20°C. Performance should not be impacted if lyophilized Opal fluorophores have been exposed to room temperature (RT), if exposure was less than seven days.

RECONSTITUTED

Reconstitute all Opals (except Opal Polaris 780) with 75ul Dimethylsulfoxide (DMSO). Reconstitute Opal Polaris 780 with 300uL double distilled water (ddH2O). Reconstituted Opals should be stored at 4°C in the dark. We guarantee performance three months post-reconstitution when stored as directed.

DILUTED TO WORKING SOLUTION

Reconstituted Opals should be diluted in 1X Plus Amplification Diluent (or 1X Plus Automation Amplification Diluent if staining on automated platform) except for Opal Polaris 780 which is diluted with Opal Antibody Diluent/ Block. Opal working solution is good for 24-48 hours, regardless of storage conditions. Working solution should be prepared for the volume needed, including automatic staining dead volume. Minimize exposure to light. DO NOT FREEZE working solution. Discard unused working solution.

OPAL RECONSTITUTION

BEFORE RECONSTITUTION

- Bring lyophilized Opal fluorophore and DMSO or ddH2O to RT and ensure that DMSO is completely liquid before reconstitution.
 - DMSO freezes at 4°C. Ensure DMSO is free of crystals.
- Centrifuge lyophilizate for 10 seconds at 10 x g at RT.
- Dissolve lyophilizate in DMSO by gently vortexing.

AFTER RECONSTITUTION

- Centrifuge stock solution for 10 seconds at 10 x g at RT.
- Let Opal fluorophore stock stand 10-15 minutes at RT to ensure lyophilizate has completely dissolved.
- Vortex and centrifuge Opal fluorophore stock again for 10 seconds at 10 x g at RT.
- Prepare working aliquots of 5 10 ul each depending on desired use and wrap aliquot caps with parafilm.
 - DMSO is extremely hydroscopic and water could cause the dye to hydrolyze.
- Store in the dark at 4°C.
 - Use non-transparent caps OR wrap aliquots in aluminum foil.
- For subsequent preparation of working solution please ensure reconstituted Opals are completely dissolved before pipetting.
 - Hold in your hand and flick the tube a few times before gently vortexing.
 - Important: Centrifuge solution at 10 s at 10 x g at RT.
 - Open the cap and pipette the minimal amount required for a working solution.
- Minimize the number of freeze/thaw cycles by aliquoting reconstituted Opal fluorophore stock solution into microcentrifuge vials.

