

For acid washing coverslips:

1. Separate coverslips so they are not stuck together.
2. Place glass coverslips into a glass container with a 1M HCl solution.
3. Heat the container to 50-60 °C for 4-16 hours with occasional agitation.
4. Wash the coverslips extensively in ddH₂O (3 times). Be sure to wash out the acid between coverslips that get stuck together.
5. Rinse coverslips in 100% ethanol.
6. Dry them between sheets of Whatman filter paper and store them in a dry, dust-free container.

Gelatin subbing – coating coverslips for tissue sections:

Prepare the subbing solution as follows:

1. Dissolve gelatin in H₂O in a flask or beaker at 60°C to make a 0.2% (w/v) solution.

<https://www.sigmaaldrich.com/catalog/product/sigma/g9382?lang=en®ion=US>

2. Cool the solution to 40°C, then add chromium potassium sulfate to 0.02% (w/v) or 0.2 g per 1L solution.

If you don't have access to chromium potassium sulfate you can try to skip this step – but this enhances the adhesion for tissue sections.

3. Cool the solution to 4°C and use immediately (recommended) or store for several weeks at 4°C.
4. Place clean coverslips in appropriate racks (Wash-N-Dry or similar) and immerse into a glass staining dish filled with the gelatin subbing solution for 2 min at 4°C.

<https://us.vwr.com/store/product/12361351/wash-n-dry-cover-slip-rack-electron-microscopy-sciences>

Perform the subbing carefully to avoid formation of bubbles on the coverslip surface.

5. Remove the coverslip rack from the subbing solution and set it on its side to let the excess solution drain off.
6. Dry coverslips overnight before use.

Coverslips subbed with gelatin are stable at room temperature for several weeks.