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VALAP protocol

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[1]In-house protocol

1 Works for me This protocol is published without a DOI.

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ABSTRACT

VALAP is a biologically inert method for sealing coverslips, making it usefulfor live cell imaging.

PROTOCOL CITATION

Elizabeth Fozo 2021. VALAP protocol. **protocols.io** https://protocols.io/view/valap-protocol-brhkm34w

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GUIDELINES

- Supplies
- Mix together
- Use:

1. Method 1: Painting it on
2. Method 2: Careful placement

MATERIALS TEXT

- Vaseline (also called petrolatum)
- Lanolin
- Paraffin wax (flakes work best)
- Disposable container that can be heated on a hot plate
- A disposable stirring device that can withstand heat (or glass rod that can be cleaned)

The Vaseline, lanolin, and paraffin can be purchased from Fisher/VWR or, oftentimes, at your local drug store.

SAFETY WARNINGS

- **NEVER leave unattended on the hot plate!** Valapleft unattended on a hot plate will vaporize into the room and will re-solidify on other surfaces. This includes optics if there's a microscope in the room!
- Do not overheat!

DISCLAIMER:

DISCLAIMER: THIS WORK IS IN PROGRESS. IT IS FOR INFORMATIONAL PURPOSES ONLY; USE AT YOUR OWN RISK

ABSTRACT

VALAP is a biologically inert method for sealing coverslips, making it usefulfor live cell imaging.

BEFORE STARTING

Mix together:

- In a disposable but heat resistant container, combine equal parts by weight of the three components.
- In a fume hood, heat the container at a low temperature to slowly melt ingredients together, mixing occasionally.
- When it has combined into a homogenous liquid, carefully pour the liquid into small jars or bottles for storage. Allow it to cool before placing the cap on.

Use: Method 1 - "Painting" it on

1 Put the jar or bottle on a hotplate on the lowest temperature setting. **Do not leave unattended!!!**

2 Wait for the Valap to melt fully.

3 Using a cotton-tipped applicator, make sure it is well loaded with liquid Valap.

4 Quickly wipe the Valap along the open edge of the coverslip, half on the coverslip and half on the slide.

5 Repeat for the rest of the coverslip edges that need to be sealed.

6 Be careful not to get Valap on microscope optics! It is very difficult to remove and it's presence will significantly degrade image quality.

Use: Method 2 - Careful placement

7 This method uses a small metal spatula and an alcohol burner.

8 Use the spatula to take a small amount of valap from the container.

9 Hold it over the flame to melt it.

10 Put a small bead of valap along the open edge of the coverslip.

11 Repeat for the other sides of the coverslip

Both methods take a bit of practice to do quickly. Method 2 creates a smaller profile and does not encroach on the coverslip surface as much as Method 1.