

Citifluor™ CFM 3 High Refractive Index Mountant Solution containing an Antifadent

Usage

This glycerol based solution has been specially formulated so as to have a refractive index of ~ 1.52 (at room temperature) and contains an antifadent to retard the bleaching of fluorochromes. The refractive index of the solution is designed to match the refractive index of the glass of the objective lens and glass of the cover-slip. The CFM 3 solutions will be particularly useful for high magnification work where immersion oils are used to minimise distortion of the image due to refraction of the viewing light and bleaching of the fluorochrome occurs. A further attribute of the solution is that it leads to CLEARING of tissue samples thereby aiding visualisation of fluorochromes at depths previously unattainable (<http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0121096>). These properties make the solutions very valuable for three-dimensional imaging of specimens using confocal fluorescence microscopy.

Since the CFM-3 solution has a relatively low pH solution, wash the sample with a buffer of appropriate pH followed by a couple of washes with the CFM-3 solution. Apply a cover slip.

Properties and storage of CFM 3 mountant solutions

The solutions are of medium viscosity, are water-white in appearance and have a pH of ~ 6.5. The CFM-3 solution should be NOT BE STORED IN A REFRIGERATOR but at temperatures between 20 and 22°C. If stored at lower temperatures, crystals may appear in the solution. These may be removed by either centrifugation or filtration or alternatively by warming the solution to between 25 and 28°C. The cap of the bottles should always be replaced after use, to prevent ingress of water which will lower the refractive index. Solutions stored under these conditions have been found to exhibit little apparent deterioration over a 6 month period although occasionally small crystals may form.