

## Calbryte™ 520, potassium salt

Catalog Number: 20656, 20657, 20658

Unit Size: 2x50 ug, 1 mg, 10x50 ug

### Product Details

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Storage Conditions	Freeze (< -15 °C), Minimize light exposure,
Expiration Date	12 months upon receiving

### Chemical Properties

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Appearance	Solid orange-red
Molecular Weight	909.02
Soluble In	Water

### Spectral Properties

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Excitation Wavelength	493 nm
Emission Wavelength	515 nm

### Applications

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Calcium measurement is critical for numerous biological investigations. Fluorescent probes that show spectral responses upon binding calcium have enabled researchers to investigate changes in cellular free calcium concentrations by using fluorescence microscopy, flow cytometry, fluorescence spectroscopy and fluorescence microplate readers. Followed by Fluo-3 being introduced in 1989, Fluo-4, Fluo-8 and Cal-520 were later developed with improved signal/background ratio. However, there are still a few severe problems with Fluo-4. For example, as for Fluo-3, in all most all the intracellular calcium assays with Fluo-4, probenecid is required to prevent the cell-loaded Fluo-4 from leaking out of cells. The use of probenecid with Fluo-4-based calcium assays compromise the assay results since probenecid is well-documented to have a variety of complicated cellular effects. Calbryte™ 520 is a new generation of fluorescent indicator for calcium measurements, its greatly improved signal-to-noise ratio and better intracellular retention properties make Calbryte™ 520 the most robust calcium indicator. It has the identical excitation and emission wavelength as Fluo-4, thus the same Fluo-4 assay settings can be readily applied to Calbryte™ 520-based calcium assays.