

**RatioWorks™ Cal-590L®/Cy5-Dextran
Conjugate *MW 10,000***Catalog number: 20527
Unit size: 1 mg**Product Details**

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

Chemical Properties

Appearance	Solid
Soluble In	Water

Applications

Calcium measurement is critical for numerous biological investigations. Fluorescent probes that show spectral responses upon binding calcium have enabled researchers to investigate changes in intracellular free calcium concentrations by using fluorescence microscopy, flow cytometry, fluorescence spectroscopy and fluorescence microplate readers. Cells may be physically loaded with the cell-impermeant dextran-conjugated calcium indicators using patch pipette or microinjection. The dextran forms of our calcium indicators show a dramatic reduction in both leakage and compartmentalization compared to the AM ester forms. Among the fluorescent calcium indicator dextran conjugates, Cal-590 dextran conjugates might be the best choice of red fluorescence due to their high fluorescence quantum yield and large fluorescence enhancement by calcium. This Cal-590L dextran exhibits low affinity to calcium ion than Cal-590 dextran, and optimized for monitoring high level calcium ion. RatioWorks™ Cal-590L/Cy5-Dextran Conjugate carries a calcium-independent Cy5 fluorophore as a reference color for radiometric measurements. The Cal-590L fluorophore can be well excited by Krypton laser at 568 nm where Cy5 has minimal excitation. The reference Cy5 fluorophore can be well excited by He-Ne laser at 633 nm or red laser at 647 nm where Cal-590L fluorophore has minimal excitation.