

Cal-590L® Dextran Conjugate *MW 10,000*

Catalog number: 20525

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

Spectral Properties

Excitation Wavelength	569 nm
Emission Wavelength	590 nm

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 salt forms of these dextran-conjugated calcium indicators using patch pipette or microinjection. The fluorescence signal from these cells is measured using fluorescence microscopy. 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-590L dextran conjugates might be a better choice than other red fluorescent dextran conjugates due to its higher fluorescence quantum yield and larger fluorescence enhancement by calcium. Cal-590L dextran has $K_d \sim 230 \mu M$.