

Cal-520ER™ potassium salt

Catalog Number: 21132, 21148

Unit Size: 5x50 ug, 10x50 ug

Product Details

Storage Conditions	Freeze (< -15 °C), Minimize light exposure
Expiration Date	24 months upon receiving

Chemical Properties

Appearance	Solid orange
Molecular Weight	1002.06
Soluble In	Water

Spectral Properties

Excitation Wavelength	492 nm
Emission Wavelength	515 nm

Applications

Cal-520ER™ Potassium Salt is designed to monitor changes in calcium ion (Ca^{2+}) levels in the endoplasmic reticulum (ER). The potassium salt form of Cal-520ER™ is not cell permeable and is intended for applications that require controlled intracellular delivery or specialized calcium measurement workflows.

Calcium signaling plays an important role in cell health, disease-related research, and intracellular calcium homeostasis. Ca^{2+} release from the ER and other calcium stores is involved in the activation of many cellular functions, and changes in ER Ca^{2+} content and dynamics have been associated with ER stress response, abnormal autophagy, and cell death-related pathways. Cal-520ER™ is a low-affinity Ca^{2+} indicator that can be used to record fast Ca^{2+} signals and measure the kinetics of Ca^{2+} currents. Compared to Oregon Green BAPTA-5N and Fluo-4FF, Cal-520ER™ provides improved signal-to-noise performance for ER calcium dynamics measurements.