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Product Information Sheet

Ordering Information

Product Number:	20451
Product Name:	Rhod-2 dextran conjugate *Low affinity with MW 10,000*
Unit Size:	1 mg
Storage Conditions:	Freeze (<-15 °C), Desiccated, Avoid Light
Expiration Date:	12 months upon receiving

Chemical and Spectral Properties

Appearance:	Solid
Molecular Weight:	~11000
Soluble In:	Water
Excitation Wavelength:	557
Emission Wavelength:	579

Application Notes

Dextran-conjugated calcium indicators are stably retained within neurons. As a result, they are well suited to measuring presynaptic calcium at physiological temperatures. In addition, dextran indicators can be used to label neurons and their presynaptic boutons in vivo. This has allowed measurements of calcium in the presynaptic boutons of projection fibers that cannot be stably loaded with other types of indicators. Stephan D. Brenowitz and Wade G. Regehr reported a technique for in vivo loading of the climbing fiber projection to the cerebellum with Rhod 2-dextran indicators for presynaptic calcium imaging in brain slices. This technique is applicable to studies of projection fibers in many species from which brain slices can be prepared. The dextran indicators can be injected into the inferior olive using a stereotaxic device. This Rhod 2-dextran conjugate has low affinity with Kd = 3.8 uM.