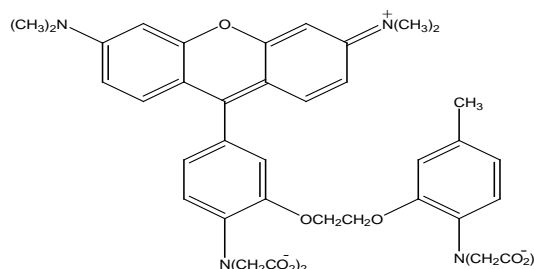


PRODUCT AND SAFETY DATA SHEET

PRODUCT NAME: Rhod-2, trisodium salt**CATALOG NO.** 50022**MOLECULAR INFORMATION:** C₄₀H₃₉N₄Na₃O₁₁
Mwt: 945**PROPERTIES:**

Color & Form Orange red
Purity ≥ 90% by HPLC
Solubility Soluble in DMSO & water (pH >6)
Absorption/Emission 552nm/576nm (low or high [Ca²⁺])
Extinction Coefficient 96,000 M⁻¹cm⁻¹ (552 nm)

STORAGE AND HANDLING:

Stored desiccated at 4 °C upon receipt. Protect from light, especially when in solution.

APPLICATION:

Rhod-2 is similar to fluo-3 in that the excitation and emission spectra do not undergo a shift and the sensor is essentially nonfluorescent before Ca²⁺ binding but becomes more fluorescent with increasing Ca²⁺ concentration. The absorption (552 nm) and emission (576 nm) maxima of rhod-2, however, are longer than those of fluo-3. The longer absorption and emission wavelengths of rhod-2 may make it useful for some applications where autofluorescence is a problem, or where another fluorescent dye of shorter wavelengths is used at the same time. The fluorescent enhancement for rhod-2 from low [Ca²⁺] to high [Ca²⁺] was smaller than that for fluo-3, and also in general rhod-2 is somewhat less fluorescent than fluo-3.

Rhod-2 salt forms are membrane-impermeant but can be loaded into cells via microinjection or scrape loading.

Biotium offers A-23187(**59001**), an ionophore that is commonly used for intracellular calibration of calcium indicators. Biotium also offers EDC (**59002**, also known as EDAC), which can be used to fix calcium indicators in cells, if post histochemical studies are desired following physiological experiments.

Ref: 1) Vergara, J., et al. *Biophys. J.* **59**, 12(1991); 2) Parker, I., et al. *Science* **250**, 977(1990); 3) Minta, A., et al. *J. Biol. Chem.* **264**, 8171(1989)

TOXICITY: Unknown

FIRST AID:	Potentially harmful. Avoid prolonged or repeated exposure. Avoid getting in eyes, on skin, or on clothing. Wash thoroughly after handling. If eye or skin contact occurs, wash affected areas with plenty of water for 15 minutes and seek medical advice. In case of inhaling or swallowing, move individual to fresh air and seek medical advice immediately.
-------------------	---

Disclaimer: Materials from Biotium are sold for research use only, and are not intended for food, drug, household, or cosmetic use. Biotium is not liable for any damage resulting from handling or contact with this product.
