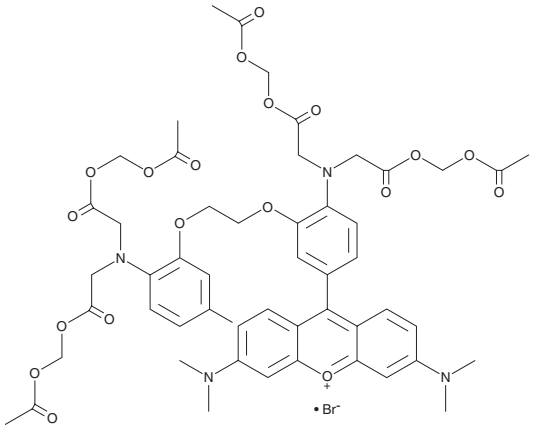
PRODUCT INFORMATION

Rhod-2 AM

Item No. 19355



CAS Registry No.:	145037-81-6
Formal Name:	9-[4-[*bis*[2-[(acetyloxy)methoxy]-2-oxoethyl]amino]-3-[2-[2-[*bis*[2-[(acetyloxy)methoxy]-2-oxoethyl]amino]phenoxy]ethoxy]phenyl]-3,6-*bis*(dimethylamino)-xanthylium, monobromide
Synonym:	Rhod-2 Acetoxymethyl ester
MF:	$C_{52}H_{59}N_4O_{19}$ • Br
FW:	1,124.0
Purity:	≥93%
UV/Vis.:	λ_{max}: 215, 255, 549 nm
Supplied as:	A solid
Storage:	-20°C
Stability:	≥4 years

Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Rhod-2 AM is supplied as a solid. A stock solution may be made by dissolving the rhod-2 AM in the solvent of choice, which should be purged with an inert gas. Rhod-2 AM is soluble in the organic solvent DMSO.

Description

Rhod-2 AM is an acetoxymethyl (AM) ester of the red fluorescent calcium indicator rhod-2. The AM group facilitates cellular uptake and is removed by cytoplasmic esterases, resulting in intracellular accumulation of rhod-2.[1-3] Rhod-2 AM selectively accumulates within mitochondria and, as a result, is commonly used to monitor calcium changes within this organelle.[4-6] Excitation and emission maxima are 557 and 581 nm, respectively.[3]

References

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3. Paredes, R.M., Etzler, J.C., Watts, L.T., *et al.* Chemical calcium indicators. *Methods* **46(3)**, 143-151 (2008).
4. Wang, S., Chen, J., and Valderrȷbano, M. Nutrient restriction preserves calcium cycling and mitochondrial function in cardiac myocytes during ischemia and reperfusion. *Cell Calcium* **51(6)**, 445-451 (2012).
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6. Elamin, E., Masclee, A., Troost, F., *et al.* Cytotoxicity and metabolic stress induced by acetaldehyde in human intestinal LS174T goblet-like cells. *Am. J. Physiol. Gastrointest. Liver Physiol.* **307(3)**, G286-G294 (2014).

CAYMAN CHEMICAL
1180 EAST ELLSWORTH RD
ANN ARBOR, MI 48108 · USA
PHONE: [800] 364-9897
[734] 971-3335
FAX: [734] 971-3640
CUSTSERV@CAYMANCHEM.COM
WWW.**CAYMANCHEM**.COM