

Rhod-2, AM Ester

Membrane-permeant form of Rhod-2 calcium indicator that can be loaded into cells via incubation. Because of the relatively low water solubility of the AM ester, the mild detergent Pluronic F-127 is often used as a dispersing agent to facilitate dye loading.



Product attributes

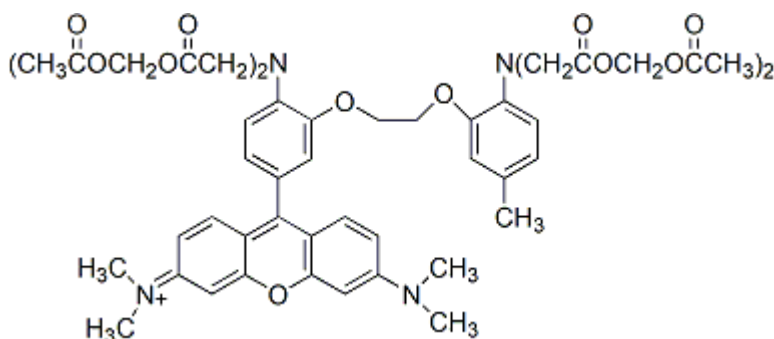
CAS number	145037-81-6
Cell permeability	Membrane permeant
Indicator type	Non-ratiometric
Excitation/Emission	556/576 nm (after hydrolysis)

Product Description

Membrane-permeant form of Rhod-2 that can be loaded into cells via incubation. Because of the relatively low water solubility of the AM ester, the mild detergent [Pluronic® F-127 \(cat# 59004\)](#) is often used as a dispersing agent to facilitate dye loading. Rhod-2-AM itself does not bind Ca^{2+} , but it is readily hydrolyzed to Rhod-2 by endogenous esterases once it enters cells.

- Red solid soluble in DMSO
- Store at -20 °C and protect from light, especially in solution
- $\text{C}_{52}\text{H}_{59}\text{BrN}_4\text{O}_{19}$
- MW: 1132
- [145037-81-6]

For more information on Rhod-2, see [50020](#).



BAPTA-based ion indicators like Rhod-2 have been shown to be fixable in situ by [EDC/EDAC \(cat# 59002\)](#). The fixation of indicator dyes is useful for downstream immunofluorescence and IHC studies ([Cell Calcium 1997, 21\(3\), 175](#)).

As the indicator does not covalently bind to cellular components, it may be actively effluxed from the cell by organic anion transporters. The rate of efflux increases with temperature, and may vary between cell types, resulting in variable retention times of a few minutes to hours. Experiments using indicators in cells usually are performed within one or two hours of loading, but it may be possible to re-load cells with indicator if needed. The organic anion transporter inhibitor [Probenecid \(#50027\)](#) can be used to slow the rate of indicator efflux from cells.

Pluronic is a registered trademark of BASF.

References

1. Methods Cell Biol, 99, 113, (2021), [DOI: 10.1016/B978-0-12-374841-6.00005-0](#)