

TMRM

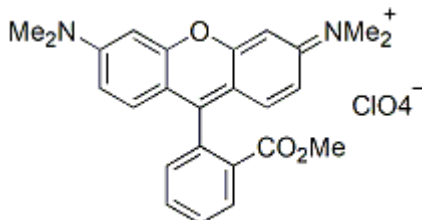
TMRM (Tetramethylrhodamine methyl ester, perchlorate) and TMRE are preferred dyes for quantitative measurements of membrane potentials using the Nernst equation.



Product Description

TMRM (Tetramethylrhodamine methyl ester, perchlorate) and TMRE ([70016](#)) are preferred dyes for quantitative measurements of membrane potentials using the Nernst equation. The dyes do not form aggregates in cell membranes and have minimal interaction with membrane proteins. Thus, the transmembrane distribution of the dyes is directly related to the membrane potential according to the Nernst equation. We also offer [TMRE, 2 mM in DMSO](#).

- $\lambda_{Ex}/\lambda_{Em}$ (MeOH) = 548/573 nm
- Red solid soluble in DMSO, DMF or EtOH
- Store at 4 °C and protect from light
- $C_{25}H_{25}ClN_2O_7$
- MW: 501
- [115532-50-8]



Product attributes

CAS number	115532-50-8
Probe cellular localization	Mitochondria
For live or fixed cells	For live/intact cells
Assay type/options	Real-time imaging
Cell permeability	Membrane permeant
Apoptosis/viability marker	Mitochondrial potential
Potential dependence	Mitochondrial potential-dependent
Colors	Red
Excitation/Emission	549/574 nm

References

1. Meth Cell Biol 38, 195 (1993).
2. Meth Cell Biol 30, 193 (1989).
3. Biophys J 56, 1053 (1989).
4. Biophys J 53, 785 (1988).

This datasheet was generated on May 10, 2026 at 12:33:27 PM. Visit product page to check for updated information before use.

Product link: <https://biotium-woo.supremeclients.com/product/tetramethylrhodamine-methyl-ester-perchloratetmrml/>