

# TMRM Perchlorate

## Catalog No: tcsc0033442



### Available Sizes

**Size:** 5mg

**Size:** 10mg



### Specifications

**CAS No:**

115532-50-8

**Formula:**

$C_{25}H_{25}ClN_2O_7$

**Pathway:**

Others

**Target:**

Others

**Purity / Grade:**

>98%

**Solubility:**

DMSO : 62.5 mg/mL (124.77 mM; Need ultrasonic and warming)

**Alternative Names:**

T668

**Observed Molecular Weight:**

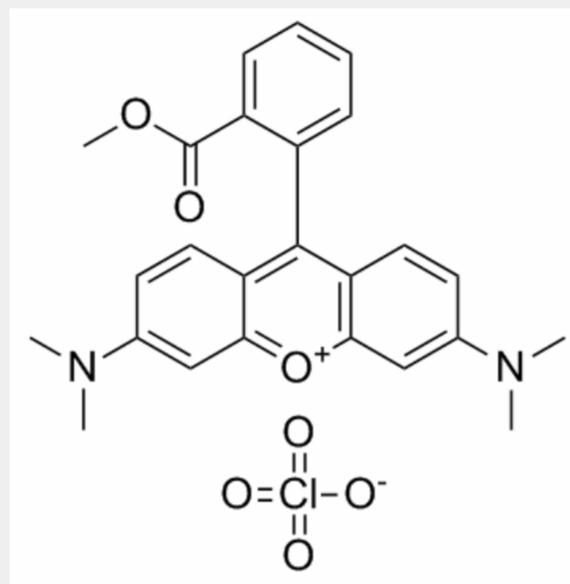
500.93

### Product Description

TMRM Perchlorate is a cell-permeant cationic lipophilic red fluorescent dye ( $\lambda_{ex}=530$  nm,  $\lambda_{em}=592$  nm).

**In Vitro:**

TMRM Perchlorate is a fluorescent probe (excitation,  $530\pm 21$  nm; emission,  $592\pm 22$  nm). The fluorescence signal in the presence of TMRM Perchlorate shows a slight decrease after the addition of glutamate, indicative of increased polarization of the mitochondrial inner membrane. In the presence of TMRM Perchlorate ( $2\ \mu\text{M}$ ) the coupled respiration with Complex I substrates or upon the addition of Complex II substrate is decreased by 27%<sup>[1]</sup>. Exposure of hippocampal cultures to low concentrations of TMRM Perchlorate (50 to 500 nM) for 1 to 3 hours results in selective staining of mitochondria in both neurons and the underlying glial cells. Exposure of hippocampal cultures to high concentrations of TMRM Perchlorate (1 to 25  $\mu\text{M}$ ) stains mitochondria selectively and quickly, reaching a plateau after 5 to 10 min. Low concentrations of TMRM Perchlorate (50 to 200 nM) do not induce apoptosis, whereas higher concentrations (0.5 and 2.5  $\mu\text{M}$ ) enhance apoptosis ( $K_D = 500$  nM)<sup>[2]</sup>.



All products are for RESEARCH USE ONLY. Not for diagnostic & therapeutic purposes!