Web: www.taiclone.com
Tel: +886-2-2735-9682
Email: order@taiclone.com

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 (λ_{ex}=530 nm, λ_{em}=592 nm).

In Vitro:

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TMRM Perchlorate is a fluorescent probe (excitation, 530±21 nm; emission, 592±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 μM) the coupled respiration with Complex I substrates or upon the addition of Complex II substrate is decreased by 27%[1]. 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 μM) 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 μM) enhance apoptosis (K_D = 500 nM)[2].