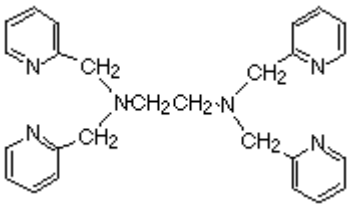
FT-44736A

TPEN

For masking transition metal cations in fluorescent calcium monitoring.

Product Description

Name :	**TPEN** tetrakis-(2-pyridylmethyl)ethylenediamine
Catalog Number :	FP-44736A, 100mg
Molecular Weight :	MW= 425 $C_{26}H_{28}N_6$ CAS [16858-02-9]
Solubility:	Water, DMSO or DMF 10 mg/ml DMSO, 0.6 mg/ml acetic acid



Storage: +4°C . Stable for at least one year. Protect from light and moisture

Introduction

TPEN is an excellent heavy metal chelator while it does not affect Ca^{++}, Mg^{++} , Na^{+} or K^{+} concentrations. Thus, TPEN is a useful tool to identify effects of heavy metals (Zn^{++}, Fe^{++}/Fe^{+++}, Cu^{++}, and Mn^{++}, etc.) on fluorescent indicators of Ca^{++}, Mg^{++} ,Na^{+} and K^{+}.

Maximum wavelength is 260 nm.The physical properties of TPEN are as follows: pKa_1=10.27, pKa_2=3.32, pKa_3=4.85, and pKa_4=7.19; $LogK_{Mn}$=10.27, $logK_{Fe}$=14.61, $logK_{Zn}$=15.58, $logK_{Mg}$=1.7, and $logK_{Ca}$=4.4.

Directions for use

Directions for Use

Storage & Stability: Store at +4°C
Protocole: incubate 1 µmol/L TPEN for 30 minutes to 24h.

References

- **Kolenko V**. *et al*., Inhibition of NF-κB Activity in Human T Lymphocytes Induces Caspase-Dependent Apoptosis Without Detectable Activation of Caspase-1 and -3, *J. Immunol*., 163: 590 - 598 (1999) Article
- **Li J.L.** *et al*., Effects of fatigue and training on sarcoplasmic reticulum Ca^{2+} regulation in human skeletal muscle, *J Appl Physiol*, 92: 912 (2002) Article
- **Poyner DR** *et al*., Characterization of metal ion-induced [3H]inositol hexakisphosphate binding to rat cerebellar membranes, *J. Biol. Chem*., 268: 1032 - 1038 (1993) Article
- **Stefano GB** *et al*., Estradiol-stimulated nitric oxide release in human granulocytes is dependent on intracellular calcium transients: evidence of a cell surface estrogen receptor, *Blood*, 95: 3951 - 3958 (2000) Article

Related / associated products and documents

See BioSciences Innovations catalogue and e-search tool.

- BAPTA, AM, FP-486103
- Ionomycin, FP-53989A

FT-44736A

Ordering information

Catalog size quantities and prices may be found at www.interchim.com/
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