# Protoporphyrin IX Dimethyl Ester



# PRODUCT IN FOCUS



# **Protoporphyrin IX Dimethyl Ester**

#### INTRODUCTION

Protoporphyrin IX dimethyl ester, abbreviated PPMX, is an organic moiety belonging to category porphyrins. On exposure to light, PPMX releases reactive oxygen that can be used to destroy targeted cancer cells and thus it find applications largely in medicines.

## Manufacture

It is produced by esterification of protoporphyrin IX. The latter is synthesized by oxidation of protoporphyrinogen by enzyme *Protoporphyrinogen Oxidase*.

Synonym	PPMX Ooporphyrin dimethyl ester
CAS no.	5522-66-7
EINECS no.	226-870-3
Molecular formula	$C_{36}H_{38}N_4O_4$
Molecular weight	590.71
Structure	H <sub>5</sub> CQ H <sub>5</sub> C CH <sub>5</sub> CH <sub>2</sub> NN HN CH <sub>5</sub> H <sub>5</sub> CO CH <sub>2</sub>

# **Applications**

## **Derivatives**

- Porphyrin S-411
- Protoporphyrin A
- Harderoporphyrin
- Hematoporphyrin

#### Others

- A potent photosensitizer of human nasopharyngeal carcinoma
- An important precursor to biologically essential prosthetic groups such as Cytochrome C
- As a standard material in acid extraction of erythrocyte protoporphyrin

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# **SPECIFICATIONS**

Test	Unit	Specifications
Appearance	-	Black powder
Solubility	-	Soluble in acetonitrile:THF = 1:1
Identification By TLC By NMR	-	Should be positive Should conform to the structure
Purity	%	Min 85.0
LOD	%	Max 5.0
Ash	%	Max 0.5

## **STORAGE**

Stored at 2 - 8°C

# **PACKING**

5 kg, 10 kg, and 10 kg drum

## **REACH Status**

Not registered

ExSyn offers PPMX on commercial scales and welcomes enquiries. No matter the quantity you need, our exceptional quality and service will make ExSyn your supplier of choice! If you need any additional information or SDS, please contact us.