

PRODUCT INFORMATION

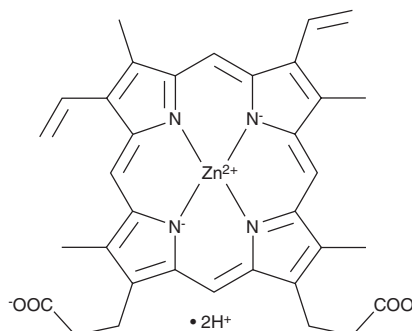


Zinc Protoporphyrin-9

Item No. 14483

CAS Registry No.: 15442-64-5
Formal Name: (SP-4-2)-[7,12-diethenyl-3,8,13,17-tetramethyl-21H,23H-porphine-2,18-dipropanoato(4-)-κN²¹,κN²²,κN²³,κN²⁴]-zincate(2-), dihydrogen

Synonym: ZnPPiX
MF: C₃₄H₃₂N₄O₄Zn
FW: 626.0
UV/Vis.: λ_{max}: 416 nm
Supplied as: A crystalline solid
Storage: -20°C
Stability: ≥4 years



Information represents the product specifications. Batch specific analytical results are provided on each certificate of analysis.

Laboratory Procedures

Zinc protoporphyrin-9 (ZnPPiX) is supplied as a crystalline solid. A stock solution may be made by dissolving the ZnPPiX in the solvent of choice, which should be purged with an inert gas. ZnPPiX is slightly soluble in DMSO and dimethyl formamide.

Description

ZnPPiX is an endogenous metabolite formed during heme biosynthesis under conditions of iron insufficiency or impaired iron utilization.¹ It also regulates heme catabolism through competitive inhibition of heme oxygenase, the rate-limiting enzyme in the heme degradation pathway that produces bilirubin and carbon monoxide.¹ ZnPPiX has been shown to inhibit 80% of soluble guanylyl cyclase basal activity at 2.5 μM and to inactivate the NOS isoforms nNOS, iNOS, and eNOS with IC₅₀ values of 0.8, 4, and 5 μM, respectively.^{2,3} ZnPPiX has been used to assess iron status and to diagnose iron disorders and has shown therapeutic potential in hyperbilirubinemia.¹

References

1. Labbé, R.F., Vreman, H.J., and Stevenson, D.K. Zinc protoporphyrin: A metabolite with a mission. *Clin. Chem.* **45**(12), 2060-2072 (1999).
2. Serfass, L. and Burstyn, J.N. Effect of heme oxygenase inhibitors on soluble guanylyl cyclase activity. *Arch. Biochem. Biophys.* **359**(1), 8-16 (1998).
3. Wolff, D.J., Naddelman, R.A., Lubeskie, A., et al. Inhibition of nitric oxide synthase isoforms by porphyrins. *Arch. Biochem. Biophys.* **333**(1), 27-34 (1996).

WARNING

THIS PRODUCT IS FOR RESEARCH ONLY - NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until further information becomes available. Do not ingest, inhale, get in eyes, on skin, or on clothing. Wash thoroughly after handling. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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