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Lieferung & Zahlungsart

siehe unsere Liefer- und Versandbedingungen

Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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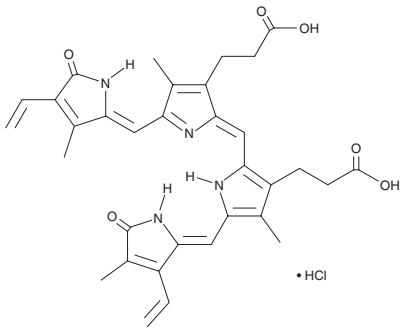
PRODUCT INFORMATION

Biliverdin (hydrochloride)

Item No. 19257

CAS Registry No.:	856699-18-8
Formal Name:	3,18-diethenyl-1,19,22,24-tetrahydro-2,7,13,17-tetramethyl-1,19-dioxo-21H-biline-8,12-dipropanoic acid, monohydrochloride
MF:	$C_{33}H_{34}N_4O_6 \bullet HCl$
FW:	619.1
Purity:	≥98%
UV/Vis.:	λ_{max}: 310, 376, 689 nm
Supplied as:	A crystalline solid
Storage:	-20°C
Stability:	≥2 years



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

Laboratory Procedures

Biliverdin (hydrochloride) is supplied as a crystalline solid. A stock solution may be made by dissolving the biliverdin (hydrochloride) in the solvent of choice. Biliverdin (hydrochloride) is soluble in organic solvents such as DMSO and dimethyl formamide (DMF), which should be purged with an inert gas. The solubility of biliverdin (hydrochloride) in these solvents is approximately 20 mg/ml.

Biliverdin (hydrochloride) is sparingly soluble in aqueous buffers. For maximum solubility in aqueous buffers, biliverdin (hydrochloride) should first be dissolved in DMF and then diluted with the aqueous buffer of choice. Biliverdin (hydrochloride) has a solubility of approximately 0.5 mg/ml in a 1:1 solution of DMF:PBS (pH 7.2) using this method. We do not recommend storing the aqueous solution for more than one day.

Description

Biliverdin is a green bile pigment produced from the oxidation of heme in a reaction catalyzed by heme oxygenase and is further reduced to bilirubin (Item No. 17161) by biliverdin reductase.[1,2] Biliverdin regulates the cellular heme degradation process by inhibiting substrates from binding to the catalytic site of heme oxygenase. Bile pigments such as biliverdin are known to possess anti-mutagenic and antioxidant properties[3,4]

References

1. Liu, Y., Moënne-Loccoz, P., Loehr, T.M., *et al.* Heme oxygenase-1, intermediates in verdoheme formation and the requirement for reduction equivalents. *J. Biol. Chem.* **272**, 6909-6917 (1997).
2. Maines, M.D. The heme oxygenase system: A regulator of second messenger gases. *Annu. Rev. Pharmacol. Toxicol.* **37**, 517-554 (1997).
3. Bulmer, A.C., Ried, K., Blanchfield, J.T., *et al.* The anti-mutagenic properties of bile pigments. *Mutat. Res.* **658(1-2)**, 28-41 (2008).
4. Mölzer, C., Huber, H., Steyrer, A., *et al. In vitro* antioxidant capacity and antigenotoxic properties of protoporphyrin and structurally related tetrapyrroles. *Free Rad. Res.* **46(11)**, 1369-1377 (2012).

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