

PRODUCT INFORMATION



Urobilinogens

Item No. 21432

CAS Registry No.: 11000-27-4
Formal Name: 3-(2-((3-(2-carboxyethyl)-4-methyl-5-((3-methyl-5-oxo-4-vinyl-2,5-dihydro-1H-pyrrol-2-yl)methyl)-1H-pyrrol-2-yl)methyl)-5-((3-ethyl-4-methyl-5-oxo-2,5-dihydro-1H-pyrrol-2-yl)methyl)-4-methyl-1H-pyrrol-3-yl)propanoic acid

MF: C₃₃H₄₄N₄O₆ (for D-Urobilinogen)

FW: 592.7

Purity: A mixture of urobilinogens

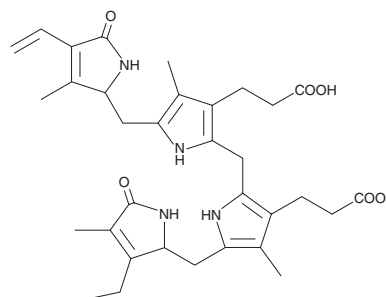
Supplied as: A 25 mg/ml solution in sodium hydroxide

Storage: -20°C

Stability: ≥1 year

Special Conditions: Protect from light and moisture; Store under argon

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



Description

Urobilinogens is a mixture of the bilirubin metabolites D-urobilinogen, L-urobilinogen, also known as stercobilinogen, and *i*-urobilinogen, also known as mesobilirubinogen.¹⁻³ They are formed from bilirubin by gut microbiota. Cecal levels of D-urobilinogen, L-urobilinogen, and *i*-urobilinogen are increased in mice fed a high-fat diet.⁴ Increased fecal levels of L-urobilinogen are negatively correlated with decreased blood levels of hemoglobin in patients with heterozygous β -thalassemia.⁵

References

1. Hall, B., Levy, S., Dufault-Thompson, K., *et al.* BilR is a gut microbial enzyme that reduces bilirubin to urobilinogen. *Nat. Microbiol.* **9(1)**, 173-184 (2024).
2. Vitek, L., Majer, F., Muchová, L., *et al.* Identification of bilirubin reduction products formed by *Clostridium perfringens* isolated from human neonatal fecal flora. *J. Chromatogr. B Analyt. Technol. Biomed. Life Sci.* **833(2)**, 149-157 (2006).
3. Sekera, E.R., Rudolph, H.L., Carro, S.D., *et al.* Depletion of stercobilin in fecal matter from a mouse model of autism spectrum disorders. *Metabolomics* **13(11)**, 132 (2017).
4. Daniel, H., Gholami, A.M., Berry, D., *et al.* High-fat diet alters gut microbiota physiology in mice. *ISME J.* **8(2)**, 295-308 (2014).
5. Gallo, E., Pich, P., Ricco, G., *et al.* The relationship between anemia, fecal stercobilinogen, erythrocyte survival, and globin synthesis in heterozygotes for β -thalassemia. *Blood* **46(5)**, 693-698 (1975).

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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