

PRODUCT INFORMATION



20-HETE MaxSpec® Standard

Item No. 10007269

CAS Registry No.: 79551-86-3

Formal Name: 20-hydroxy-5Z,8Z,11Z,14Z-eicosatetraenoic acid

Synonyms: 20-hydroxy Arachidonic Acid, 20-Hydroxyeicosatetraenoic Acid

MF: C₂₀H₃₂O₃

FW: 320.5

Purity: ≥95%

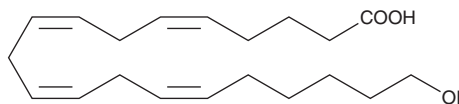
Supplied as: A solution in ethanol; in a deactivated glass ampule

Concentration: 10 µg/ml (nominal); see certificate of analysis for verified concentration

Storage: -20°C

Stability: ≥3 years; *Stability testing is ongoing to ensure concentration accuracy. The certificate of analysis and product expiry date will be updated upon completion of testing.*

Special Conditions: Store upright and unopened at -20°C. Warm to room temperature prior to opening. Light sensitive.



Description

20-HETE is a cytochrome P450 (CYP450) metabolite postulated to play an autacoid role in the renal and cerebral vasculature.¹ In rat cerebral microvessels, 20-HETE is a vasoconstrictor that mediates pressure-induced autoregulatory vasoconstriction.² 20-HETE is excreted mainly as the glucuronide conjugate. The concentration of free 20-HETE (20-40 pg/ml in human urine) is about 10-fold lower than the corresponding concentration of the 20-glucuronide.³ 20-HETE can be further metabolized by cyclooxygenase to 20-hydroxy PGG₂ and 20-hydroxy PGH₂.⁴

20-HETE MaxSpec® standard is a quantitative grade standard of 20-HETE (Item No. 90030) that has been prepared specifically for mass spectrometry or any application where quantitative reproducibility is required. The solution has been prepared gravimetrically and is supplied in a deactivated glass ampule sealed under argon. The concentration was verified by comparison to an independently prepared calibration standard. This 20-HETE MaxSpec® standard is guaranteed to meet identity, purity, stability, and concentration specifications and is provided with a batch-specific certificate of analysis. Ongoing stability testing is performed to ensure the concentration remains accurate throughout the shelf life of the product.

Note: *The amount of solution added to the vial is in excess of the listed amount. Therefore, it is necessary to accurately measure volumes for preparation of calibration standards. Follow recommended storage and handling conditions to maintain product quality.*

References

1. McGiff, J.C. and Quilley, J. 20-HETE and the kidney: Resolution of old problems and new beginnings. *Am. J. Physiol.* **277(3 Pt 2)**, R607-R623 (1999).
2. Gebremedhin, D., Lange, A.R., Lowry, T.F., et al. Production of 20-HETE and its role in autoregulation of cerebral blood flow. *Circ. Res.* **87(1)**, 60-65 (2000).
3. Prakash, C., Zhang, J.Y., Falck, J.R., et al. 20-Hydroxyeicosatetraenoic acid is excreted as a glucuronide conjugate in human urine. *Biochem. Biophys. Res. Commun.* **185(2)**, 728-733 (1992).
4. Schwartzman, M.L., Falck, J.R., Yadagiri, P., et al. Metabolism of 20-hydroxyeicosatetraenoic acid by cyclooxygenase. Formation and identification of novel endothelium-dependent vasoconstrictor metabolites. *J. Biol. Chem.* **264(20)**, 11658-11662 (1989).

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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