

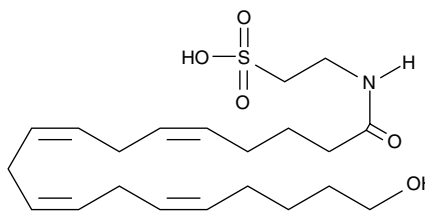
Product Information



20-hydroxy N-Arachidonoyl Taurine

Item No. 10009501

Formal Name: 20-hydroxy-2-[(1-oxo-5Z,8Z,11Z,14Z-eicosatetraenyl)amino]-ethane sulfonic acid
MF: C₂₂H₃₇NO₅S
FW: 427.6
Purity: ≥95%
Stability: ≥1 year at -20°C
Supplied as: A solution in ethanol



Laboratory Procedures

For long term storage, we suggest that 20-hydroxy N-arachidonoyl taurine be stored as supplied at -20°C. It should be stable for at least one year.

20-hydroxy N-Arachidonoyl taurine is supplied as a solution in ethanol. To change the solvent, simply evaporate the ethanol under a gentle stream of nitrogen and immediately add the solvent of choice. Solvents such as DMSO and dimethyl formamide purged with an inert gas can be used. The solubility of 20-hydroxy N-arachidonoyl taurine in these solvents is approximately 10 mg/ml.

Further dilutions of the stock solution into aqueous buffers or isotonic saline should be made prior to performing biological experiments. Ensure that the residual amount of organic solvent is insignificant, since organic solvents may have physiological effects at low concentrations. If an organic solvent-free solution of 20-hydroxy N-arachidonoyl taurine is needed, it can be prepared by evaporating the ethanol and directly dissolving the neat oil in aqueous buffers. The solubility of 20-hydroxy N-arachidonoyl taurine in PBS, pH 7.2, is approximately 0.5 mg/ml. We do not recommend storing the aqueous solution for more than one day.

Arachidonic acid is metabolized by cytochrome P450 (CYP450) 4A ω-hydroxylase to 20-HETE, which acts as a vasoconstrictor in the kidney and brain.¹ During mass spectrometry lipidomics analysis of rat brain, a series of fatty acyl amides of taurine was discovered, of which arachidonoyl taurine is a prominent member.² 20-hydroxy N-Arachidonoyl taurine is a potential CYP450 metabolite of N-arachidonoyl taurine and may activate members of the transient receptor potential (TRP) family of calcium channels.³

References

1. McGiff, J.C. and Quilley, J. 20-HETE and the kidney: Resolution of old problems and new beginnings. *Am. J. Physiol.* **277**, R607-R623 (1999).
2. Cravatt, B.F. and Maxey, K.M. Personal Communication. (2004).
3. Saghatelian, A., McKinney, M.K., Bandell, M., *et al.* A FAAH-regulated class of N-acyl taurines that activates TRP ion channels. *Biochemistry* **45(30)**, 9007-9015 (2006).

Related Products

For a list of related products please visit: www.caymanchem.com/catalog/10009501

WARNING: THIS PRODUCT IS FOR LABORATORY RESEARCH ONLY; NOT FOR ADMINISTRATION TO HUMANS. NOT FOR HUMAN OR VETERINARY DIAGNOSTIC OR THERAPEUTIC USE.

SAFETY DATA

This material should be considered hazardous until information to the contrary becomes available. Do not ingest, swallow, or inhale. Do not get in eyes, on skin, or on clothing. Wash thoroughly after handling. This information contains some, but not all, of the information required for the safe and proper use of this material. Before use, the user must review the complete Safety Data Sheet, which has been sent via email to your institution.

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