

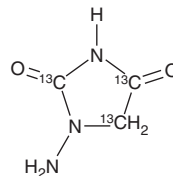
PRODUCT INFORMATION



1-Amino Hydantoin-¹³C₃

Item No. 45619

CAS Registry No.:	957509-31-8
Formal Name:	1-amino-2,4-imidazolidinedione-2,4,5- ¹³ C ₃
Synonym:	AHD- ¹³ C ₃
MF:	[¹³ C] ₃ H ₅ N ₃ O ₂
FW:	118.1
Purity:	≥95%
Supplied as:	A 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

1-Amino hydantoin-¹³C₃ (AHD-¹³C₃) is supplied as a solid. A stock solution may be made by dissolving the AHD-¹³C₃ in the solvent of choice, which should be purged with an inert gas. AHD-¹³C₃ is slightly soluble in DMSO and methanol.

Description

AHD-¹³C₃ is intended for use as an internal standard for the quantification of AHD by GC- or LC-MS. AHD is a metabolite of the antibiotic nitrofurantoin (Item No. 23510) that has been used as a marker for nitrofurantoin use in food animals.¹ It accumulates in tissues, where it is stable for at least six weeks in pigs.² AHD has been found in fish intended for human consumption.³

References

1. Fan, W., Gao, W., Jiao, J., *et al.* Highly sensitive SERS detection of residual nitrofurantoin and 1-amino-hydantoin in aquatic products and feeds. *Luminescence* **37(1)**, 82-88 (2022).
2. Cooper, K.M., Mulder, P.P., van Rhijn, J.A., *et al.* Depletion of four nitrofurantoin antibiotics and their tissue-bound metabolites in porcine tissues and determination using LC-MS/MS and HPLC-UV. *Food Addit. Contam.* **22(5)**, 406-414 (2005).
3. Zhang, Y., Qiao, H., Chen, C., *et al.* Determination of nitrofurantoin metabolites residues in aquatic products by ultra-performance liquid chromatography-tandem mass spectrometry. *Food Chem.* **192**, 612-617 (2016).

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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