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Produktinformation



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- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

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PRODUCT INFORMATION

HT-2 Toxin-¹³C₂₂
Item No. 31299

CAS Registry No.: 1486469-92-4

Formal Name: (2S,2'R,3'R,4'S,5'S,5a'R,7'S,9a'R)-5a'-((acetoxymethyl-¹³C)-3',4'-dihydroxy-5',8'-di(methyl-¹³C)-2',3',4',5',5a',6',7',9a'-octahydrospiro[oxirane-2,10'-[2,5]methanobenzo[b]oxepin]-7'-yl-2,2',3,3',4',5',5a',6',7',8',9',9a'-¹³C₁₂ 3-(methyl-¹³C)butanoate-1,2,3,4-¹³C₄

MF: [¹³C]₂₂H₃₂O₈

FW: 446.3

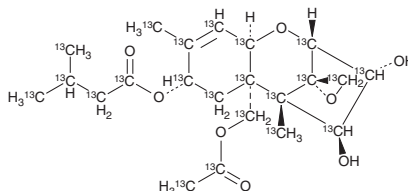
Purity: ≥98%

Supplied as: A solution in acetonitrile

Storage: -20°C

Stability: ≥1 year

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



Description

HT-2 toxin-¹³C₂₂ is intended for use as an internal standard for the quantification of HT-2 toxin (Item No. 20431) by GC- or LC-MS. HT-2 toxin is a type A trichothecene mycotoxin and an active, deacetylated metabolite of the trichothecene mycotoxin T-2 toxin (Item No. 11444).^{1,2} Like T-2 toxin, HT-2 toxin inhibits protein synthesis and cell proliferation in plants.² HT-2 toxin also reduces viability of HepG2, A549, HEp-2, Caco-2, A-204, U937, Jurkat, and RPMI-8226 cancer cells with IC₅₀ values ranging from 3.1 to 23 ng/ml and human umbilical vein endothelial cells with an IC₅₀ value of 56.4 ng/ml.¹ It induces oxidative stress, DNA damage, and autophagy in, as well as halts the development of, cultured mouse embryos when used at a concentration of 10 nM.³ HT-2 toxin has been found in cereal grains and food products.^{4,5}

References

- Nielsen, C., Casteel, M., Didier, A., et al. Trichothecene-induced cytotoxicity on human cell lines. *Mycotoxin Res.* **25**(2), 77-84 (2009).
- Nathanail, A.V., Varga, E., Meng-Reiterer, J., et al. Metabolism of the fusarium mycotoxins T-2 toxin and HT-2 toxin in wheat. *J. Agric. Food Chem.* **63**(35), 7862-7872 (2015).
- Zhang, L., Li, L., Xu, J., et al. HT-2 toxin exposure induces mitochondria dysfunction and DNA damage during mouse early embryo development. *Reprod. Toxicol.* **85**, 104-109 (2019).
- Langseth, W. and Rundberget, T. The occurrence of HT-2 toxin and other trichothecenes in Norwegian cereals. *Mycopathologia* **147**(3), 157-165 (1999).
- Al-Taher, F., Cappozzo, J., Zweigenbaum, J., et al. Detection and quantitation of mycotoxins in infant cereals in the U.S. market by LC-MS/MS using a stable isotope dilution assay. *Food Control* **72**(Part A), 27-35 (2017).

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.

WARRANTY AND LIMITATION OF REMEDY

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