



¹³C Isotope Labeled

Reference Materials

Biopure™ fully stable ¹³C isotope labeled referenced materials play a pivotal role in LC- MS/MS analysis. They are widely used in multi-analyte methods to eliminate recovery losses.

How Biopure™ fully stable ¹³C isotope labeled referenced materials work

¹³C isotope labeled Mycotoxins are used as internal standards (ISTD) for mass spectrometry (MS).

All constituting carbon atoms in the molecule are replaced by the stable carbon isotope ¹³C. Because of the similar chemical structure of analyte and ¹³C analogue these substances behave similar in liquid chromatography but differentiate in mass spectrometry. With the use of ¹³C fully labeled internal standards recovery losses from sample preparation and ion suppression or enhancement effects in the MS source can be eliminated.

Application in LC-MS/MS – Routine Analysis

To keep costs efficient the point of internal standard addition of the sample into the MS system is crucial. Depending on the sensitivity of the MS system used ISTD can be added to the analytical sample prior to clean-up or prior to injection into the LC-MS/MS system. All recovery losses from the point of addition onwards are eliminated.



Features and Benefits

- Correct matrix effects
- Fully labeled calibrants show an optimum mass unit difference between analyte and IS
- Results with high accuracy and precision
- No isotope effects due to the fully labeled ¹³C calibrants
- State-of-the-art technology



Ordering Information

Item	Description	Volume	Item No.
U-[¹³ C ₁₇]-3-Acetyl-Deoxynivalenol	25 µg/mL in acetonitrile	1.2 mL	10002811
U-[¹³ C ₁₇]-15-Acetyl-Deoxynivalenol	10 µg/mL in acetonitrile	1.2 mL	10002840
U-[¹³ C ₁₇]-Aflatoxin B1	0.5 µg/mL in acetonitrile	1.2 mL	10002818
U-[¹³ C ₁₇]-Aflatoxin B1	0.5 µg/mL in acetonitrile	5 mL	10006999
U-[¹³ C ₁₇]-Aflatoxin B2	0.5 µg/mL in acetonitrile	1.2 mL	10002819
U-[¹³ C ₁₇]-Aflatoxin B2	0.5 µg/mL in acetonitrile	5 mL	10007018
U-[¹³ C ₁₇]-Aflatoxin G1	0.5 µg/mL in acetonitrile	1.2 mL	10002820
U-[¹³ C ₁₇]-Aflatoxin G1	0.5 µg/mL in acetonitrile	5 mL	10007019
U-[¹³ C ₁₇]-Aflatoxin G2	0.5 µg/mL in acetonitrile	1.2 mL	10002822
U-[¹³ C ₁₇]-Aflatoxin G2	0.5 µg/mL in acetonitrile	5 mL	10007020
U-[¹³ C ₁₇]-Aflatoxin M1	0.5 µg/mL in acetonitrile	1.2 mL	10002832
U-[¹³ C ₁₇]-Aflatoxin M1	0.5 µg/mL in acetonitrile	5 mL	10007022
U-[¹³ C ₁₉]-Diacetoxyscirpenol	25 µg/mL in acetonitrile	1.2 mL	10002831
U-[¹³ C ₁₃]-Citrinin	10 µg/mL in acetonitrile	1.2 mL	10002836
U-[¹³ C ₂₀]-Cyclopiazonic acid (on request)	10 µg/mL in acetonitrile	1.2 mL	10002837
U-[¹³ C ₁₅]-Deoxynivalenol	25 µg/mL in acetonitrile	1.2 mL	10000332
U-[¹³ C ₁₅]-Deoxynivalenol	25 µg/mL in acetonitrile	5 mL	10006137
U-[¹³ C ₂₁]-Deoxynivalenol-3-Glucoside	10 µg/mL in acetonitrile	1.2 mL	10002838
U-[¹³ C ₃₄]-Fumonisin B1	25 µg/mL in acetonitrile/water	1.2 mL	10002806
U-[¹³ C ₃₄]-Fumonisin B1	25 µg/mL in acetonitrile/water	5 mL	10006995
U-[¹³ C ₃₄]-Fumonisin B2	10 µg/mL in acetonitrile/water	1.2 mL	10002808
U-[¹³ C ₃₄]-Fumonisin B2	10 µg/mL in acetonitrile/water	5 mL	10006996
U-[¹³ C ₃₄]-Fumonisin B3	10 µg/mL in acetonitrile/water	1.2 mL	10002810
U-[¹³ C ₂₂]-HT-2 Toxin	25 µg/mL in acetonitrile	1.2 mL	10002814
U-[¹³ C ₂₂]-HT-2 Toxin	25 µg/mL in acetonitrile	5 mL	10006997
U-[¹³ C ₁₇]-Mycophenolic acid (on request)	100 µg/mL in acetonitrile	1.2 mL	10002823
U-[¹³ C ₁₅]-Nivalenol	25 µg/mL in acetonitrile	1.2 mL	10002829
U-[¹³ C ₂₀]-Ochratoxin A	10 µg/mL in acetonitrile	1.2 mL	10002812
U-[¹³ C ₂₀]-Ochratoxin A	10 µg/mL in acetonitrile	5 mL	10002813
U-[¹³ C ₂₀]-Ochratoxin B	10 µg/mL in acetonitrile	1.2 mL	10007086
U-[¹³ C ₇]-Patulin	25 µg/mL in acetonitrile	1.2 mL	10002825
U-[¹³ C ₇]-Patulin	25 µg/mL in acetonitrile	5 mL	10007023
U-[¹³ C ₁₈]-Sterigmatocystin	25 µg/mL in acetonitrile	1.2 mL	10002828
U-[¹³ C ₂₄]-T-2 Toxin	25 µg/mL in acetonitrile	1.2 mL	10000354
U-[¹³ C ₂₄]-T-2 Toxin	25 µg/mL in acetonitrile	5 mL	10006994
U-[¹³ C ₁₈]-Zearalenone	25 µg/mL in acetonitrile	1.2 mL	10002816
U-[¹³ C ₁₈]-Zearalenone	25 µg/mL in acetonitrile	5 mL	10006998
U-[¹³ C ₁₄]-Alternariol	25 µg/mL in acetonitrile	1.2 mL	10006457
U-[¹³ C ₁₅]-Alternariolmethylether	25 µg/mL in acetonitrile	1.2 mL	10006458
U-[¹³ C ₄]-Moniliformin	10 µg/mL in acetonitrile/water	1.2 mL	10006945
U-[¹³ C ₁₀]-Tenuazonic acid	10 µg/mL (dried down)	1 mL	10007037
MIX 10 (¹³ C Fusarium Toxins) (on request)	25 µg/mL ¹³ C ₁₅ DON & ¹³ C ₂₂ HT-2, 1 µg/mL ¹³ C ₂₂ T-2, 3 µg/mL ¹³ C ₁₈ ZON in acetonitrile	1.2 mL	10002835
MIX 11 (¹³ C ₁₇ Aflatoxins)	0.5 µg/mL each in acetonitrile	1.2 mL	10002834
MIX 11 (¹³ C ₁₇ Aflatoxins)	0.5 µg/mL each in acetonitrile	5 mL	10007021
MIX 12 (¹³ C ₃₄ Fumonisinis)	5 µg/mL each in acetonitrile/water	1.2 mL	10002833
U-[¹³ C ₁₇]-Griseofulvine (on request)	25 µg/mL in acetonitrile	1.2 mL	10001837
U-[¹³ C ₂₂ , ¹⁵ N ₂]-Oxytetracycline (on request)	2.5 µg/mL dried down	5 x 1 mL	10001841
U-[¹³ C ₂₂ , ¹⁵ N ₂]-Tetracycline (on request)	2.5 µg/mL dried down	5 x 1 mL	10001840
U-[¹³ C ₃]-Melamine (on request)	100 µg/mL in acetonitrile/water	1.2 mL	10001920