Product Data Sheet

Nivalenol-13C₁₅

Cat. No.: HY-N6801S 911392-40-0 CAS No.: $^{13}C_{15}H_{20}O_{7}$ Molecular Formula:

Molecular Weight: 327.2

Isotope-Labeled Compounds Target:

Pathway: Others

Storage: Please store the product under the recommended conditions in the Certificate of

BIOLOGICAL ACTIVITY

Description	Nivalenol- 13 C ₁₅ is the 13 C labeled Nivalenol (HY-N6801) $^{[1]}$. Nivalenol, classified as type B trichotecenes toxins produced by Fusarium graminearum, is a fungal metabolite present in agricultural product $^{[2]}$. Nivalenol induces cell death through caspase-dependent mechanisms and via the intrinsic apoptotic pathway. Nivalenol affects the immune system, causes emesis, growth retardation, reproductive disorders and has a haematotoxic/myelotoxic effect $^{[3]}$.
IC ₅₀ & Target	caspase ^[2]
In Vitro	Stable heavy isotopes of hydrogen, carbon, and other elements have been incorporated into drug molecules, largely as tracers for quantitation during the drug development process. Deuteration has gained attention because of its potential to affect the pharmacokinetic and metabolic profiles of drugs ^[1] . MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Bryła M, et al. Natural Occurrence of Nivalenol, Deoxynivalenol, and Deoxynivalenol-3-Glucoside in Polish Winter Wheat. Toxins (Basel). 2018 Feb 13;10(2).

[2]. Aupanun S, et al. Individual and combined mycotoxins deoxynivalenol, nivalenol, and fusarenon-X induced apoptosis in lymphoid tissues of mice after oral exposure. Toxicon. 2019 Jul;165:83-94.

[3]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019 Feb;53(2):211-220.

Caution: Product has not been fully validated for medical applications. For research use only.

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