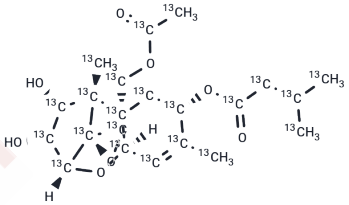
Data Sheet (Cat.No.T35775)

TargetMol

HT-2 Toxin-13C22

Chemical Properties



CAS No. : 1486469-92-4

Formula: C22H32O8

Molecular Weight: 446.322

Storage: Powder: -20°C for 3 years | In solvent: -80°C for 1 year
Actual storage temperature shall be subject to the COA.

Biological Description

Description	HT-2 Toxin-13C22 is intended for use as an internal standard for the quantification of HT-2 Toxin (T13726) 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 .1,2Like T-2 toxin, HT-2 toxin inhibits protein synthesis and cell proliferation in plants.2HT-2 toxin also reduces viability of HepG2, A549, HEp-2, Caco-2, A-204, U937, Jurkat, and RPMI-8226 cancer cells with IC50values ranging from 3.1 to 23 ng/ml and human umbilical vein endothelial cells with an IC50value of 56.4 ng/ml.1It 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.3HT-2 toxin has been found in cereal grains and food products.4,5

Solubility Information

Solubility	Acetonitrile: Soluble (< 1 mg/ml refers to the product slightly soluble or insoluble)

Preparing Stock Solutions

	1mg	5mg	10mg
1 mM	2.2405 mL	11.2027 mL	22.4054 mL
5 mM	0.4481 mL	2.2405 mL	4.4811 mL
10 mM	0.2241 mL	1.1203 mL	2.2405 mL
50 mM	0.0448 mL	0.2241 mL	0.4481 mL

Please select the appropriate solvent to prepare the stock solution, according to the solubility of the product in different solvents. Please use it as soon as possible.

Note: The dilution table applies only to solid products. For liquid products, please calculate the stock solution based on the stated concentration and/or density.

Reference

Nielsen, C., Casteel, M., Didier, A., et al.Trichothecene-induced cytotoxicity on human cell linesMycotoxin 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 wheatJ. 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 developmentReprod. Toxicol.85104-109(2019)

Langseth, W., and Rundberget, T.The occurrence of HT-2 toxin and other trichothecenes in Norwegian cerealsMycopathologia147(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 assayFood Control72(Part A)27-35(2017)