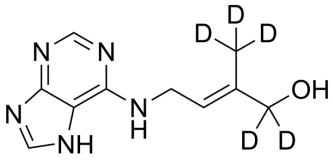
trans-Zeatin-d_5

Cat. No.:	HY-19700S
CAS No.:	72963-19-0
Molecular Formula:	$C_{10}H_8D_5N_5O$
Molecular Weight:	224.27
Target:	ERK; MEK; Endogenous Metabolite
Pathway:	MAPK/ERK Pathway; Stem Cell/Wnt; Metabolic Enzyme/Protease
Storage:	Powder -20°C 3 years In solvent -80°C 6 months -20°C 1 month



BIOLOGICAL ACTIVITY

Description	trans-Zeatin-d_5 is deuterium labeled trans-Zeatin. trans-Zeatin is a plant cytokinin, which plays an important role in cell growth, differentiation, and division; trans-Zeatin also inhibits UV-induced MEK/ERK activation.
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]. Russak EM, et al. Impact of Deuterium Substitution on the Pharmacokinetics of Pharmaceuticals. Ann Pharmacother. 2019;53(2):211-216.

[2]. Ji C, et al. Trans-Zeatin attenuates ultraviolet induced down-regulation of aquaporin-3 in cultured human skin keratinocytes. Int J Mol Med. 2010 Aug;26(2):257-63.

[3]. Li Q, et al. Endogenous trans-zeatin content in plants with different metal-accumulating ability: a field survey. Environ Sci Pollut Res Int. 2016 Dec;23(23):23422-23435. Epub 2016 Sep 9.

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