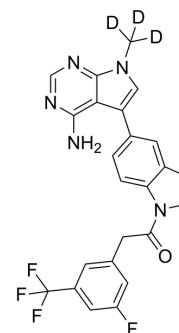


## PERK-IN-4-d<sub>3</sub>

<b>Cat. No.:</b>	HY-137813S
<b>Molecular Formula:</b>	C <sub>24</sub> H <sub>16</sub> D <sub>3</sub> F <sub>4</sub> N <sub>5</sub> O
<b>Molecular Weight:</b>	472.45
<b>Target:</b>	PERK; Isotope-Labeled Compounds
<b>Pathway:</b>	Cell Cycle/DNA Damage; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	PERK-IN-4-d <sub>3</sub> is the deuterium labeled PERK-IN-4. PERK-IN-4 is a potent and selective PERK (protein kinase R (PKR)-like endoplasmic reticulum kinase) inhibitor with an IC <sub>50</sub> of 0.3 nM. PERK is activated in response to a variety of endoplasmic reticulum stresses implicated in numerous disease states[1].
<b>In Vitro</b>	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 <sup>[1]</sup> . 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]. Axten JM, et al. Discovery of 7-methyl-5-(1-[[3-(trifluoromethyl)phenyl]acetyl]-2,3-dihydro-1H-indol-5-yl)-7H-pyrrolo[2,3-d]pyrimidin-4-amine (GSK2606414), a potent and selective first-in-class inhibitor of protein kinase R (PKR)-like endoplasmic reticulum kinase (PERK). *J Med Chem.* 2012;55(16):7193-7207.

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

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