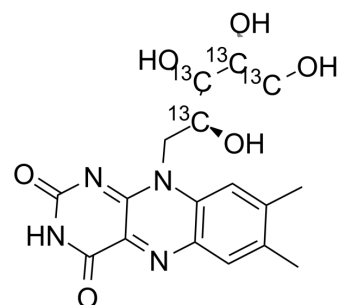


## Riboflavin-<sup>13</sup>C<sub>5</sub>

<b>Cat. No.:</b>	HY-B0456S2
<b>Molecular Formula:</b>	C <sub>13</sub> <sup>13</sup> C <sub>4</sub> H <sub>15</sub> N <sub>4</sub> O <sub>6</sub>
<b>Molecular Weight:</b>	375.29
<b>Target:</b>	Endogenous Metabolite; Isotope-Labeled Compounds
<b>Pathway:</b>	Metabolic Enzyme/Protease; Others
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	Riboflavin- <sup>13</sup> C <sub>5</sub> is the <sup>13</sup> C-labeled Riboflavin. Riboflavin is an easily absorbed micronutrient with a key role in maintaining health in humans and other animals.
<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]. Long, Q., et al., Riboflavin biosynthetic and regulatory factors as potential novel anti-infective drug targets. *Chem Biol Drug Des*, 2010. 75(4): p. 339-47.
- [3]. Zempleni, J., J.R. Galloway, and D.B. McCormick, Pharmacokinetics of orally and intravenously administered riboflavin in healthy humans. *Am J Clin Nutr*, 1996. 63(1): p. 54-66.
- [4]. Bertollo, C.M., et al., Characterization of the antinociceptive and anti-inflammatory activities of riboflavin in different experimental models. *Eur J Pharmacol*, 2006. 547(1-3): p. 184-91.

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

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