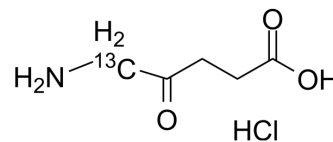


## 5-Aminolevulinic acid-<sup>13</sup>C hydrochloride

<b>Cat. No.:</b>	HY-N0305S2
<b>Molecular Formula:</b>	C <sub>4</sub> <sup>13</sup> CH <sub>10</sub> ClNO <sub>3</sub>
<b>Molecular Weight:</b>	168.58
<b>Target:</b>	Apoptosis; Autophagy; Mitophagy; Endogenous Metabolite
<b>Pathway:</b>	Apoptosis; Autophagy; Metabolic Enzyme/Protease
<b>Storage:</b>	Please store the product under the recommended conditions in the Certificate of Analysis.



### BIOLOGICAL ACTIVITY

<b>Description</b>	5-Aminolevulinic acid- <sup>13</sup> C (hydrochloride) is the <sup>13</sup> C labeled 5-Aminolevulinic acid hydrochloride[1]. 5-Aminolevulinic acid hydrochloride (5-ALA hydrochloride) is an intermediate in heme biosynthesis in the body and the universal precursor of tetrapyrroles[2][3].
<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 Feb;53(2):211-216.
- [2]. Stummer, W., et al., Fluorescence-guided surgery with 5-aminolevulinic acid for resection of malignant glioma: a randomised controlled multicentre phase III trial. *Lancet Oncol*, 2006. 7(5): p. 392-401.
- [3]. Eyupoglu, I.Y., et al., Improving the extent of malignant glioma resection by dual intraoperative visualization approach. *PLoS One*, 2012. 7(9): p. e44885.

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

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