



# SZABO SCANDIC

Part of Europa Biosite

## Produktinformation



Forschungsprodukte & Biochemikalien



Zellkultur & Verbrauchsmaterial



Diagnostik & molekulare Diagnostik



Laborgeräte & Service

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### Lieferung & Zahlungsart

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### Zuschläge

- Mindermengenzuschlag
- Trockeneiszuschlag
- Gefahrgutzuschlag
- Expressversand

### SZABO-SCANDIC HandelsgmbH

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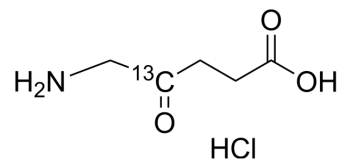
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## 5-Aminolevulinic acid-<sup>13</sup>C-1 hydrochloride

|                    |                                                                                                    |
|--------------------|----------------------------------------------------------------------------------------------------|
| Cat. No.:          | HY-N0305S3                                                                                         |
| CAS No.:           | 129720-94-1                                                                                        |
| Molecular Formula: | C <sub>4</sub> <sup>13</sup> CH <sub>10</sub> ClNO <sub>3</sub>                                    |
| Molecular Weight:  | 168.58                                                                                             |
| Target:            | Apoptosis; Autophagy; Mitophagy; Endogenous Metabolite                                             |
| Pathway:           | Apoptosis; Autophagy; Metabolic Enzyme/Protease                                                    |
| Storage:           | Powder    -20°C    3 years<br>4°C    2 years<br>In solvent   -80°C    6 months<br>-20°C    1 month |



### SOLVENT & SOLUBILITY

In Vitro

DMSO : 100 mg/mL (593.19 mM; Need ultrasonic)

H<sub>2</sub>O : 16.67 mg/mL (98.88 mM; ultrasonic and warming and heat to 60°C)

| Preparing Stock Solutions | <div><div>Solvent</div><div>Concentration</div></div>                         | Mass      | 1 mg       | 5 mg       | 10 mg |
|---------------------------|-------------------------------------------------------------------------------|-----------|------------|------------|-------|
|                           | 1 mM                                                                          | 5.9319 mL | 29.6595 mL | 59.3190 mL |       |
|                           | 5 mM                                                                          | 1.1864 mL | 5.9319 mL  | 11.8638 mL |       |
|                           | 10 mM                                                                         | 0.5932 mL | 2.9660 mL  | 5.9319 mL  |       |
|                           | Please refer to the solubility information to select the appropriate solvent. |           |            |            |       |

In Vivo

1. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline  
Solubility: ≥ 1.25 mg/mL (7.41 mM); Clear solution

2. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)  
Solubility: ≥ 1.25 mg/mL (7.41 mM); Clear solution

3. Add each solvent one by one: 10% DMSO >> 90% corn oil  
Solubility: ≥ 1.25 mg/mL (7.41 mM); Clear solution

### BIOLOGICAL ACTIVITY

|             |                                                                                                                                                                                                                                                                                                                                                      |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Description | 5-Aminolevulinic acid- <sup>13</sup> C-1 (5-ALA- <sup>13</sup> C-1) hydrochloride is the <sup>13</sup> C labeled 5-Aminolevulinic acid hydrochloride <sup>[1]</sup> . 5-Aminolevulinic acid hydrochloride (5-ALA hydrochloride) is an intermediate in heme biosynthesis in the body and the universal precursor of tetrapyrroles <sup>[2][3]</sup> . |
| 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                                                                                                      |

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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.

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

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