Hexaminolevulinate hydrochloride

Cat. No.: HY-16045

CAS No.: 140898-91-5

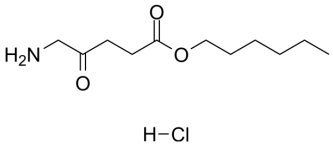
Molecular Formula: $C_{11}H_{22}ClNO_3$

Molecular Weight: 251.75

Target: Fluorescent Dye

Pathway: Others

Storage: 4°C, sealed storage, away from moisture
* In solvent : -80°C, 6 months; -20°C, 1 month (sealed storage, away from moisture)



SOLVENT & SOLUBILITY

In Vitro

DMSO : ≥ 100 mg/mL (397.22 mM)
H_2O : 100 mg/mL (397.22 mM; Need ultrasonic)
* "≥" means soluble, but saturation unknown.

Preparing Stock Solutions

Solvent / Mass / Concentration	1 mg	5 mg	10 mg
1 mM	3.9722 mL	19.8610 mL	39.7219 mL
5 mM	0.7944 mL	3.9722 mL	7.9444 mL
10 mM	0.3972 mL	1.9861 mL	3.9722 mL

Please refer to the solubility information to select the appropriate solvent.

In Vivo

1. Add each solvent one by one: PBS
   Solubility: 100 mg/mL (397.22 mM); Clear solution; Need ultrasonic
2. Add each solvent one by one: 10% DMSO >> 40% PEG300 >> 5% Tween-80 >> 45% saline
   Solubility: ≥ 2.5 mg/mL (9.93 mM); Clear solution
3. Add each solvent one by one: 10% DMSO >> 90% (20% SBE-β-CD in saline)
   Solubility: ≥ 2.5 mg/mL (9.93 mM); Clear solution
4. Add each solvent one by one: 10% DMSO >> 90% corn oil
   Solubility: ≥ 2.5 mg/mL (9.93 mM); Clear solution

BIOLOGICAL ACTIVITY

Description

Hexaminolevulinate (Hexyl 5-aminolevulinate) hydrochloride, a porphyrin precursor, is a photosensitiser that can be used in photodynamic therapy (PDT) for certain tumor. Hexaminolevulinate hydrochloride can improve the visualisation of bladder tumours[1][2].

In Vitro

Hexaminolevulinate (2.5-100 μM; 4 h in serum-free medium) hydrochloride induces PpIX production in L1210 cell line and

	pure BM[2]. Hexaminolevulinate (1-100 μM; 4 h in serum-free medium) hydrochloride induces PpIX production in the mixtures of BM with L1210 tumor cells[2]. Hexaminolevulinate (20-100 μM) in combination with increasing doses of blue light illumination from 0 to 120 s results in progressive killing of L1210 cells[2]. MCE has not independently confirmed the accuracy of these methods. They are for reference only.

REFERENCES

[1]. Witjes JA, et, al. Hexaminolevulinate-guided fluorescence cystoscopy in the diagnosis and follow-up of patients with non-muscle-invasive bladder cancer: review of the evidence and recommendations. Eur Urol. 2010 Apr;57(4):607-14.

[2]. Čunderlíková B, et, al. Hexaminolevulinate-mediated photodynamic purging of leukemia cells from BM. Bone Marrow Transplant. 2010 Oct;45(10):1553-61.

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