

## Product Data Sheet

Product Name: Lappaconite HBr

Cat. No.: GC10895

### Chemical Properties

Cas. No. 97792-45-5

Chemical Name (Z)-N-(2-((((3S,6S,6aS,7S,7aS,8S,9R,10S,11aS,12S,14S)-1-ethyl-7a,11a-dihydroxy-6,8,10-trimethoxytetradecahydro-1H-3,6a,12-(epiethane[1,1,2]triyl)-7,9-methanonaphtho[2,3-b]azocin-3-yl)oxy)carbonyl)phenyl)acetimidic acid hydrobromide

SMILES CCN1C[C@]2(OC(C3=CC=CC=C3/N=C(O)/C)=O)CC[C@@](OC)([H])[C@@]4([C@]5([H])C[C@]6([H])[C@](OC)([H])C[C@@]7(O)[C@@]5(O)[C@@]6([H])OC)[C@]2([H])C[C@@]7([H])C41[H].Br

Formula C<sub>32</sub>H<sub>45</sub>BrN<sub>2</sub>O<sub>8</sub>

M.Wt

665.61

Solubility DMSO : 28mg/mL

Storage

Store at -20°C

General tips For obtaining a higher solubility , please warm the tube at 37 °C and shake it in the ultrasonic bath for a while. Stock solution can be stored below -20°C for several months.

Shipping Condition Evaluation sample solution : ship with blue ice All other available size: ship with RT , or blue ice upon request.

Structure

### Background

Lappaconite Hydrobromide (Lappaconite HBr), a kind of alkaloid isolated from *Aconitum sinomontanum* Nakai and has showed anti-inflammatory effects [1, 2]. Lappaconite HBr acted as an analgesic drug in China. The *Aconitum sinomontanum* belongs to the Ranunculaceae family and it is used widely as an antirheumatic and analgesic agent in traditional Chinese medicine [1].

In vitro: N/A

In vivo: Lappaconite Hydrobromide absorption percentage in rat stomachs after administration was 9.67%. The absorption percentages at colon, jejunum, ileum and duodenum were, 9.51%, 11.83%, 12.95%, and 19.61%, respectively. The uptake of

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lappaconite hydrobromide was linearly increased when the concentration was raised from 10 mg/L to 40 mg/L, whereas the absorption rate constant kept at the same level. The LD50 values are of 10.5 mg/kg (i.p. administration) and 9.9 mg/kg (i.p. administration) in mice and rat, respectively. In addition, in anesthetized rabbits injected with lappaconite up to 1 mg/kg, cardiac arrhythmia was quickly observed [3].

### References:

1. Xie FM, Wang HC, Li JH, Shu HL, Jiang JR, Chang JP, et al. Studies on the metabolism of lappaconitine in humans. Identification of the metabolites of lappaconitine in human urine by high performance liquid chromatography. Biomed Chromatogr. 1990;4(1):43-6.
2. Guo T, Zhang Y, Zhao J, Zhu C, Feng N. Nanostructured lipid carriers for percutaneous administration of alkaloids isolated from Aconitum sinomontanum. J Nanobiotechnology. 2015;13:47.
3. Shamma M, Chinnasamy P, Miana GA, Khan A, Bashir M, Salazar M, et al. The alkaloids of Delphinium cashmirianum. J Nat Prod. 1979;42(6):615-23.

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