

Catalog Number: CM02014

## 产品信息

**Catalog Number:**  
CM02014

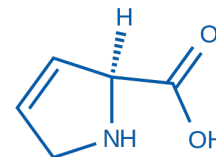
**CAS号:**  
4043-88-3

**分子式:**  
C<sub>5</sub>H<sub>7</sub>NO<sub>2</sub>
**主要靶点:**  
HRGP

**主要通路:**  
Others

**分子量:**  
113.1146

**MDL NO:**  
MFCD00065964

**Pubchem ID:**  
94284


## 描述

The leguminous shrub, *Leucaena leucocephala* (Leucaena) is wide - spread in tropical and subtropical agricultural systems and provides a ready source of protein for livestock. However, the presence of mimosine, a non - protein, amino acid comprising about 12% of the dry matter in growing tips of *Leucaena*, is toxic to animals. Mimosine is degraded rapidly in the rumen to produce 3,4 - dihydroxypyridine (3,4 - DHP) and 2,3 - dihydroxypyridine (2,3 - DHP), both of which remain toxic to animals<sup>[1]</sup>. 3,4-DHP, as a derivative of the plant amino acid mimosine, is goitrogenic in cattle, sheep, and mice. In contrast to established antithyroid compounds, such as methimazole (MMI) and propylthiouracil (PTU), 3,4-DHP has no SH-group. 3,4-DHP with various concentrations inhibited incorporation of <sup>125</sup>I into protein in human thyroid slices. It also suppressed the activation of lymphocytes by PHA (phytohaemagglutinin) and PWM (pokeweed mitogen). Suppression with 3,4-DHP was seen at 100 and 1000 μ mol/L (*P* < 0.001 vs both PHA and PWM). Those, together with a very low murine bone marrow toxicity, probably related to the absence of an SH-group, make 3,4-DHP a potential antithyroid drug<sup>[2]</sup>.

## 储存

## 储存条件:

粉末	-20°C	3年
液体	-80°C	1年

## 运输条件:

Shipped in cold pack

## 参考文献

- 1 Derakhshani H, Corley SW, Al Jassim R. Isolation and characterization of mimosine, 3, 4 DHP and 2, 3 DHP degrading bacteria from a commercial rumen inoculum. *Basic Microbiol*. 2016;56(5):580-585
- 2 Hallengren B, Hegarty MP, Forsgren A, Ericson LE, Melander A. 3,4-Dihydropyridine: a potential antithyroid drug. *Acta Endocrinol (Copenh)*. 1987;114(2):305-307