

## Hordenine Datasheet

5<sup>th</sup> Edition (Revised in January, 2017)

### [ Product Information ]

**Name:** Hordenine

**Catalog No.:** CFN99901

**Cas No.:** 539-15-1

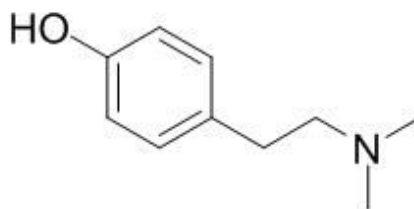
**Purity:** >=95%

**M.F:** C<sub>10</sub>H<sub>15</sub>NO

**M.W:** 165.24

**Physical Description:** White cryst.

**Synonyms:** 4-(2-Dimethylaminoethyl)phenol.



### [ Intended Use ]

1. Reference standards;
2. Pharmacological research;
3. Food research;
4. Cosmetic research;
5. Synthetic precursor compounds;
6. Intermediates & Fine Chemicals;
7. Others.

### [ Source ]

The herbs of *Dendrobium triangulare*.

## **[ Biological Activity or Inhibitors]**

Hordenine is the precursor of N-nitrosodimethylamine (NDMA) in malt.<sup>[1]</sup>

Hordenine acts as an inhibitor of noradrenaline uptake, dietary-hordenine is unlikely to be deaminated by intestinal monoamine oxidase (MAO) as this is predominantly MAO-A, consequently, it is likely to be absorbed and could affect the sympathetic nervous system, by virtue of its action as an inhibitor of noradrenaline uptake.<sup>[2]</sup>

Hordenine can inhibit melanogenesis by suppressing cAMP production, which is involved in the expression of melanogenesis-related proteins and suggest that hordenine may be an effective inhibitor of hyperpigmentation. <sup>[3]</sup>

## **[ Solvent ]**

Chloroform, Dichloromethane, Ethyl Acetate, DMSO, Acetone, etc.

## **[ HPLC Method ]**<sup>[4 ]</sup>

Mobile phase: Acetonitrile-0.25 M Ammonium acetate solution(ammonia water to adjust the pH to 9.5),gradient elution ;

Flow rate: 1.0 ml/min;

Column temperature: 30 °C;

The wave length of determination: 230 nm.

## **[ Storage ]**

2-8°C, Protected from air and light, refrigerate or freeze.

## **[ References ]**

[1] Slack P T, Wainwright T. *Journal of the Institute of Brewing*, 1981, 87(4):259-63.

[2] Barwell C J, Basma A N, Lafi M A K, *et al. J. Pharm. Pharmacol.*, 1989, 41(6):421-3.

[3] Kim S C, Lee J H, Kim M H, *et al. Food Chem.*,2013, 141(1):174-81.

[4] Qing D S, Wang X, Qin Y, *et al. China Pharmacy*, 2016(3):367-9.

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