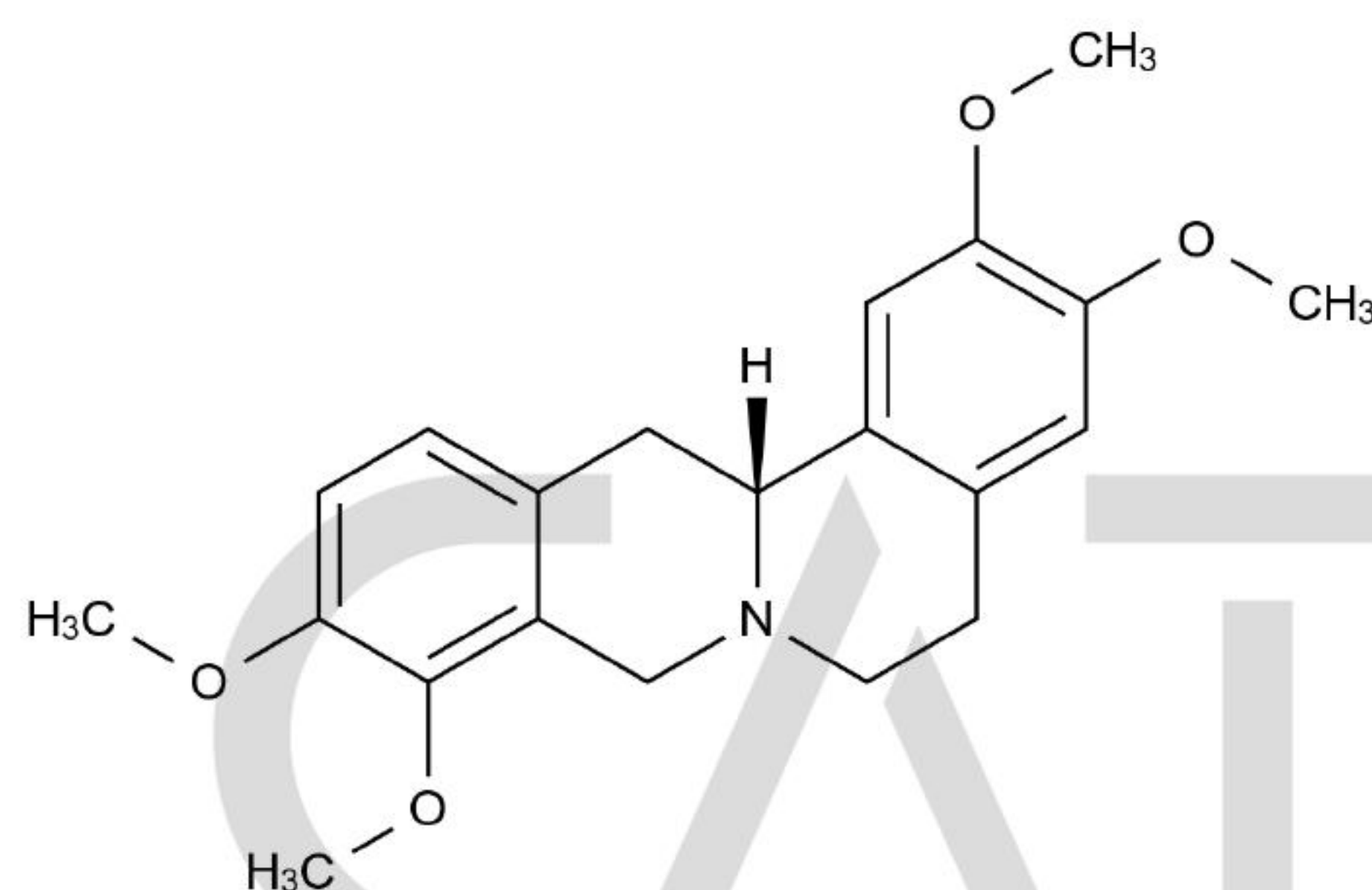


Certificate of Analysis

Reference Material & Standard

Product Name:	D-Tetrahydropalmatine	Catalogue Number:	CCPE900553
Synonyms:	N/A	Lot Number:	0802-RH-0108
CAS Number:	3520-14-7	Expiry Date:	Aug 04, 2030
Molecular Formula:	C ₂₁ H ₂₅ NO ₄	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	355.43	Shipping Condition:	Shipping at Room Temperature
Solubility:	Acetonitrile		

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Light Yellow Solid
Identification	LCMS&HNMR	Confirmed
Purity	HPLC	99.879%
Loss on Drying	TGA	0.1126%
Assay		99.8%
Uncertainty		±0.2%

Comment:

- The calculation of the mass balance method follows the formula (calculated on the non-dried basis):

$$\text{Assay (\%)} = (100\% - \text{Loss on Drying}) * \text{Purity HPLC (\%)} / 100\%$$

Loss on Drying is considered as absolute effect, HPLC purity is considered as relative effect.
- The uncertainty values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.

Signature:

Prepared by:

Nice

Reviewed by:

Lisa

Approved by General Manager:

David

Date: Aug 05, 2026

Date: Aug 05, 2026

Date: Aug 05, 2026



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