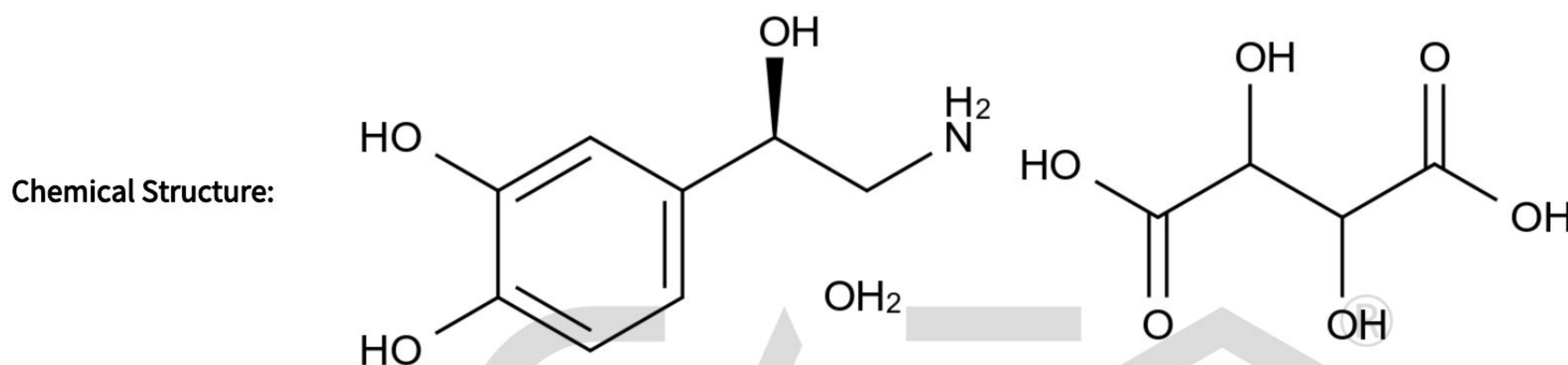


Certificate of Analysis

Reference Material

Product Name:	L-Noradrenaline Bitartrate	Catalogue Number:	CCAD303038
Chemical Name:	N/A	Lot Number:	0607-RE-0043
CAS Number:	69815-49-2	Expiry Date:	Jun 07, 2026
Molecular Formula:	C ₈ H ₁₁ NO ₃ C ₄ H ₆ O ₆ H ₂ O	Storage:	Room Temp Protected from light and Sealed
Molecular Weight:	169.18 150.09 18.02		



Test Items	Method	Results
Appearance	Visual inspection	White Powder
Identification	LCMS&CNMR&HNMR	Confirmed
Purity	HPLC	99.385%
Water Content	Karl Fischer	5.3303%
Water Content(Free Water)		ND
Assay		99.4%
Uncertainty		±2.0%

Comment:

- The content of crystal water is 5.3426%.
- The calculation of the 100% method follows the formula (calculated on the non-dried basis):

$$\text{Assay (\%)} = (100\% - \text{Water Content(Free Water)}) \times \text{Purity HPLC (\%)} / 100\%$$
 Water Content(Free Water) 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:

Yuki

Reviewed by:

Lisa

Aproved by General manager:

David

Date: Jun 08, 2023

Date: Jun 12, 2023

Date: Jun 12, 2023

