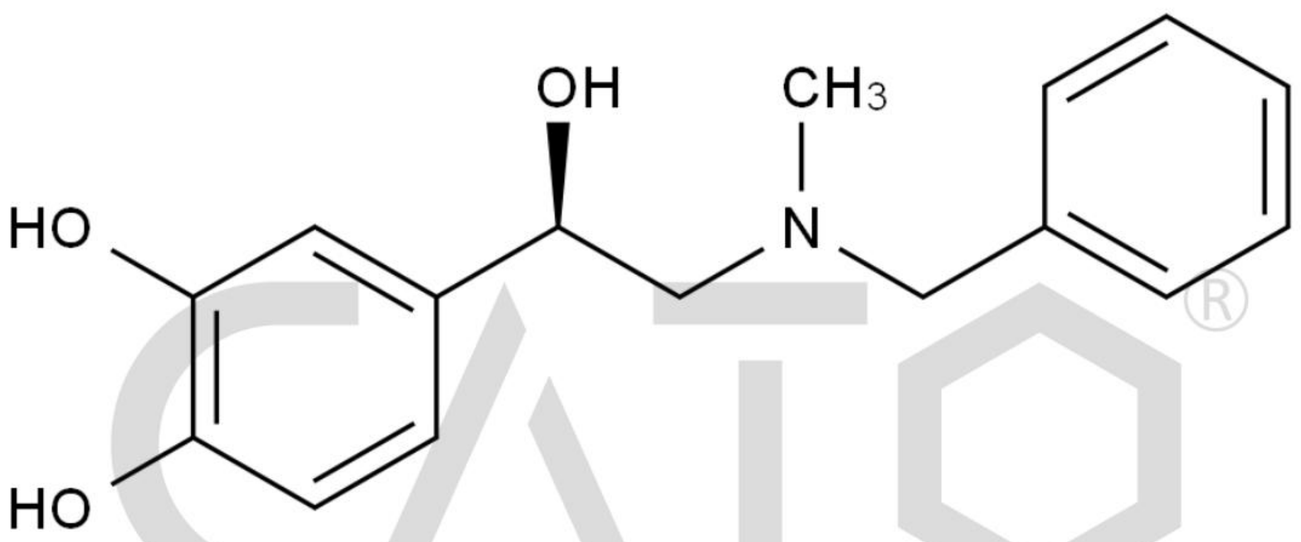
Certificate of Analysis

Reference Material & Standard

Product Name:	Adrenaline EP Impurity D	**Catalogue Number:**	C4X-184945
Synonyms:	N-Benzyl Epinephrine	**Lot Number:**	0731-RH-0072
CAS Number:	317351-40-9	**Expiry Date:**	Jul 30, 2030
Molecular Formula:	$C_{16}H_{19}NO_3$	**Storage:**	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	273.33	**Shipping Condition:**	Shipping at Room Temperature

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	Off-White Solid
Identification	LCMS&IR&CNMR&HNMR	Confirmed
Purity	HPLC	98.770%
Loss on Drying	TGA	0.1680%
Assay		98.6%

Comment:

The calculation of the mass balance method follows the formula (calculated on the non-dried basis):
*Assay (%) = (100%-Loss on Drying) * Purity HPLC (%) /100%*
Loss on Drying is considered as absolute effect, HPLC purity is considered as relative effect.

Signature:

Prepared by: Koi — Date: Jul 31, 2026

Reviewed by: Lisa — Date: Jul 31, 2026

Approved by General Manager: David — Date: Jul 31, 2026

CATO Research Chemicals Inc.