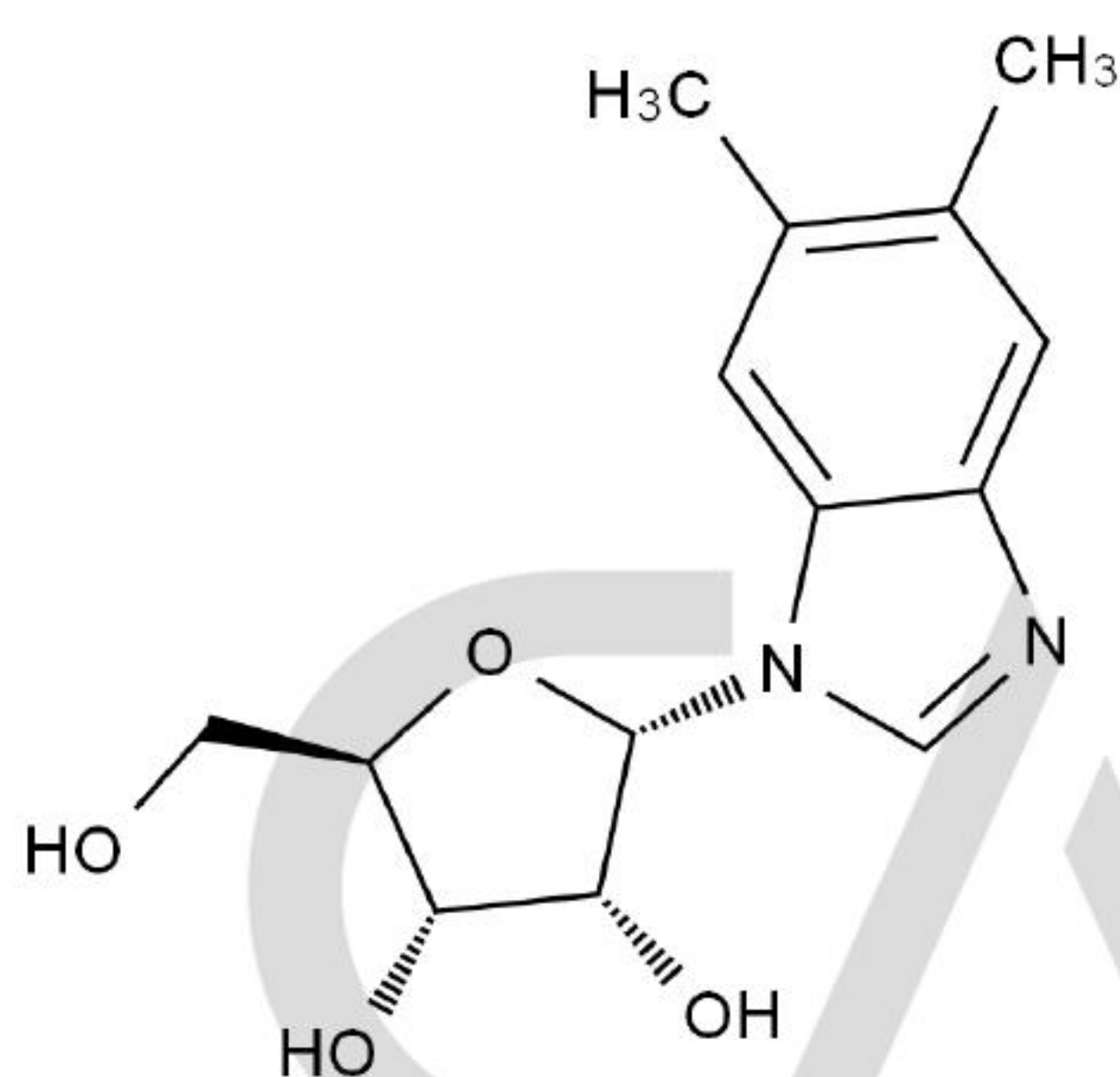


Certificate of Analysis

Reference Material & Standard

Product Name:	Methylcobalamin Impurity 20	Catalogue Number:	C4X-187420
Synonyms:	N/A	Lot Number:	0826-RF-0050
CAS Number:	132-13-8	Expiry Date:	Aug 19, 2027
Molecular Formula:	C ₁₄ H ₁₈ N ₂ O ₄	Storage:	2°C ~ 8°C Protected from light and Sealed
Molecular Weight:	278.30	Shipping Condition:	Shipping at Room Temperature

Chemical Structure:



Test Items	Method	Results
Appearance	Visual inspection	White to Off-White Solid
Identification	LCMS&IR&HNMR	Confirmed
Purity	HPLC	99.3221%
Water Content	Karl Fischer	4.30%
Residual Solvents	NMR	Not detected in NMR
Specific Rotation		[α] _D 25.0(c=0.50,H ₂ O): -85.4°
Assay		95.1%

Comment:

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

Assay (%) = (100% - Water Content - Residual Solvents) * Purity HPLC (%) / 100%

Water Content and Residual Solvents are considered as absolute effect, HPLC purity is considered as relative effect.

Signature:

Prepared by:

Lily

Reviewed by:

Hinlam

Approved by General Manager:

David

Date: Aug 27, 2024

Date: Aug 27, 2024

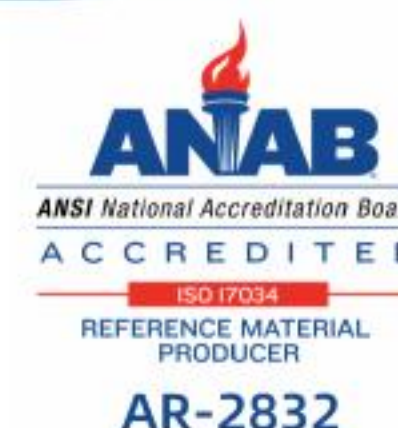
Date: Aug 27, 2024

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