



Certificate of Analysis

Certificate No.: 20231123004

Date: November 23, 2023

Retest date: November 20, 2026

Compound Name: Thiamine Impurity 15 (Toxopyrimidine)	
Synonyms:	(4-amino-2-methylpyrimidin-5-yl)methanol
TLC Catalogue Number:	T-8438
CAS Number:	73-67-6
Molecular Weight:	139.16
Molecular Formula:	C ₆ H ₉ N ₃ O
Source:	TLC Pharmaceutical Standards
Source Lot No.:	6016-001A5
Storage Conditions:	Store at 2-8 °C
Solubility:	Methanol, DMSO

Chemical structure of Thiamine Impurity 15 (Toxopyrimidine): A pyrimidine ring with a methyl group (H₃C) at position 2, an amino group (NH₂) at position 4, and a hydroxymethyl group (-CH₂OH) at position 5.

Test Description	Specifications	Results
Visual Description	White to off-white solid	Conforms
Identification		
IR	Conforms to structure	Conforms
MS	Conforms to structure	Conforms
¹H NMR	Conforms to structure	Conforms
Purity (HPLC)	Not less than 95.0%	100.0%
Impurity (HPLC)	N/A	
Water Content (KF)	N/A	0.1%
Residual Solvents (NMR)	0.2% methanol	
Assay (%)	Not less than 90.0%	99.7%
Recommendation:	Release.	

Name	Department	Signature	Date
Reviewed and approved by:	Quality Control		11/24/2023
Approved by:	Quality Assurance		11/24/2023

Attachments: HPLC, IR, MS and NMR spectra.