



MP Biomedicals, LLC

29525 Fountain Parkway

Solon OH 44139

United States

800.854.0530

www.mpbio.com

Certificate of Analysis

Description: Methotrexate, USP Grade	
Catalog number: 02102299	QI Request No: 00024965
Related Catalog number: 0210229910 0210229925 0210229980 0210229990 0210229991 0210229995	
Lot number: U1124304330	Quality Level: N/A
Recommended Retest Date (MM/DD/YYYY): 04-29-2026	

Formula: C ₂₀ H ₂₂ N ₈ O ₅	Formula Weight: 454.5
CAS #: 59-05-2	Storage: 2 - 8°C
	Storage Conditions: N/A

Additional Product information	Additional Lot Information
	Related Substances: Passes - see below (R)-Methotrexate: 0.08% Heavy Metals: <20 ppm Color of Solution L: 87 Related Compounds LC: -- Aminopterin: 0.01% -- Methopterin: 0.03% -- 4-Hydroxy-M-ptericoic Acid: 0.01% -- A-M-ptericoic Acid: 0.01% -- MTX-5-Monomethylester: 0.06% -- MTX-1-Monomethylester: 0.02% -- Unknown Single: 0.03% -- Total (with the exception of B, C, E): 0.2% -- Total: 0.2% Total Aerobic Microbial Count: <10 cfu/g Total Yeast and Mold Count: <10 cfu/g Pseudomonas aerug.: 0 cfu/g Staphylococcus aureus: 0 cfu/g Endotoxins (LAL): <0.120 EU/mg Residual Solvents: -- Acetone: <1 ppm -- Methanol: 2 ppm -- Dimethylformamide: 30 ppm

Test Description	Specification	Result	Comments
Identity Test A	PASS	PASS	
Identity Test B	PASS	PASS	
Specific Rotation (anhydrous basis)	+19 - +24°	+22°	
Methotrexate Content (anhydrous basis as C ₂₀ H ₂₂ N ₈ O ₅)	98.0 - 102.0%	99.2%	
Physical Description (Yellow to Orange Powder)	PASS	PASS	
Residue on Ignition	<=0.1%	<0.1%	
Water	<=12.0%	=10.6%	



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A handwritten signature in black ink, appearing to read 'Patrice Conway', is written over a light gray rectangular background.

10-30-2024 *Patrice Conway*

MP Biomedicals, LLC.

This is an electronically generated document

Mail to: biotech@mpbio.com