

## Certificate of Analysis

1 Reagent Lane  
 Fair Lawn, NJ 07410  
 201.796.7100 tel  
 201.796.1329 fax

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System  
 Standard ISO9001:2015 by SAI Global Certificate Number CERT – 0120633

This is to certify that units of the lot number below were tested and found to comply with the specifications of the grade listed. Certain data have been supplied by third parties. Thermo Fisher Scientific expressly disclaims all warranties, expressed or implied, including the implied warranties of merchantability and fitness for a particular purpose. Products are for research use or further manufacturing. Not for direct administration to humans or animals. It is the responsibility of the final formulator and end user to determine suitability based upon the intended use of the end product. Products are tested to meet the analytical requirements of the noted grade. The following information is the actual analytical results obtained.

Catalog Number	W6	Quality Test / Release Date	04/28/2023
Lot Number	230471		
Description	WATER, OPTIMA-LCMS GRADE		
Country of Origin	United States	Suggested Retest Date	Apr/2028
Chemical Origin	Inorganic-non animal		
BSE/TSE Comment	No animal products are used as starting raw material ingredients, or used in processing, including lubricants, processing aids, or any other material that might migrate to the finished product.		
Comment	HPLC/UHPLC-UV Gradient Suitability: Peak Height with PDA (200-400 nm) <= 2 mAU		

N/A			
Result Name	Units	Specifications	Test Value
APPEARANCE		REPORT	clear, colorless liquid
EVAPORATION RESIDUE	ppm	<= 1	0.2
IONIC IMPURITY - ALUMINUM (Al)	ppb	<= 10	<1
IONIC IMPURITY - BARIUM (Ba)	ppb	<= 10	<1
IONIC IMPURITY - CADMIUM (Cd)	ppb	<= 10	<1
IONIC IMPURITY - CALCIUM (Ca)	ppb	<= 20	<1
IONIC IMPURITY - CHROMIUM (Cr)	ppb	<= 10	<1
IONIC IMPURITY - COBALT (Co)	ppb	<= 10	<1
IONIC IMPURITY - COPPER (Cu)	ppb	<= 10	<1
IONIC IMPURITY - IRON (Fe)	ppb	<= 10	<1
IONIC IMPURITY - LEAD (Pb)	ppb	<= 10	<1
IONIC IMPURITY - MAGNESIUM (Mg)	ppb	<= 10	<1
IONIC IMPURITY - MANGANESE (Mn)	ppb	<= 10	<1
IONIC IMPURITY - NICKEL (Ni)	ppb	<= 10	<1
IONIC IMPURITY - POTASSIUM (K)	ppb	<= 10	<1
IONIC IMPURITY - SILVER (Ag)	ppb	<= 10	<1
IONIC IMPURITY - SODIUM (Na)	ppb	<= 20	<1
IONIC IMPURITY - TIN (Sn)	ppb	<= 10	<1
IONIC IMPURITY - ZINC (Zn)	ppb	<= 10	<1
LC GRADIENT TEST WITH PDA (200-400 NM)	mAU	<= 2	<2
LCMS SUITABILITY - POS. MODE (AS PROPAZINE)	ppb	<= 50	<50

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of this catalog number listed above.  
 If there are any questions with this certificate, please call at (800) 227-6701.

\*Based on suggested storage condition.

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LCMS SUITABILITY-NEG.MODE (AS CHLORAMPHENICOL)	ppb	<= 50	<50
OPTICAL ABS AT 210 NM	ABS. UNITS	<= 0.01	<0.01
OPTICAL ABS AT 220 NM	ABS. UNITS	<= 0.01	<0.01
OPTICAL ABS AT 230 NM	ABS. UNITS	<= 0.01	<0.01
OPTICAL ABS AT 240 NM	ABS. UNITS	<= 0.01	<0.01
OPTICAL ABS AT 254 NM	ABS. UNITS	<= 0.005	0.002
OPTICAL ABS AT 260 NM	ABS. UNITS	<= 0.005	<0.001
OPTICAL ABS AT 280 NM	ABS. UNITS	<= 0.005	<0.001
PROTEASE	DETECTED/NOT DETECT.	IN NOT DETECTED	NOT DETECTED
TOTAL HALOGEN	DETECTED/NOT DETECT.	IN NOT DETECTED	NOT DETECTED

Harout Sahagian - Quality Control Supervisor - Fair Lawn

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