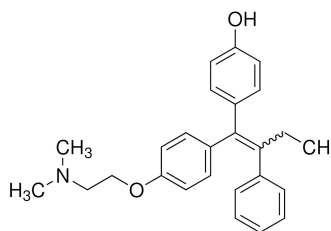


# Certificate of Analysis

**Product Name :** 4-Hydroxytamoxifen  $\geq 70\%$  Z isomer (remainder primarily E-isomer)  
**Product Number :** H6278-10MG-PW  
**Batch Number :** 0000101309  
 Source Batch : 0000087698  
 CAS Number : 68392-35-8  
 Storage Temperature : Cooler/Refrigerated  
 Molecular Formula :  $C_{26}H_{29}NO_2$   
 Formula Weight : 387.51  
 Recommended Retest Date : Jun 2023  
 Quality Release Date : 13 Jul 2020



Test	Specification	Result
Appearance (Form)	Powder	Powder
Appearance (Color)	White to White w/ Yellow Cast	White
Solubility (Solvent)	Ethanol	Ethanol
Solubility (Conc)	24.50 - 25.50 mg/ml	25.00 mg/ml
Solubility (Heating)	Yes	Yes
Solubility (Turbidity)	Clear	Clear
Solubility (Color)	Colorless to Faint Yellow	Very Faint Yellow
Water (by Karl Fischer)	$\geq 0.00\%$	0.41 %
Elemental Anal. (%C Anhydrous)	80.08 - 81.08 %	80.82 %
Elemental Anal. (%N Anhydrous)	3.11 - 4.11 %	3.55 %
Purity (TLC)	$\geq 98.00\%$	100.00 %
Purity (HPLC)	$\geq 98.00\%$	99.83 %
NMR (Solvent)	CD3OD	CD3OD
Identity by NMR	Consistent	Consistent with Structure
NMR (% Isomer Z)	70.00 - 90.00 %	83.19 %
NMR (% Isomer E)	10.00 - 30.00 %	16.81 %
NMR (Residual Solvent 1)	Diethylether	Diethylether
NMR (% Solvent 1)	$\leq 3.00\%$	0.00 %
NMR (Residual Solvent 2)	Ethanol	Ethanol
NMR (% Solvent 2)	$\leq 3.00\%$	0.00 %
NMR (Total % Resid.Solvents)	$\leq 3.00\%$	0.00 %

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at [Sigma-Aldrich.com](http://Sigma-Aldrich.com). For further inquiries, please contact Technical Service. Purchase must determine the suitability of the product for its particular use. See reverse side of website or packing slip for additional terms and conditions of sale

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Anna Bendersky, Quality Control Manager  
Quality Control  
Israel  
IL

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