



## Certificate of Analysis

### Retinoic Acid USP

**Catalog Number:** RA1001  
**Lot Number:** 0629703  
**CAS Number:** 302-79-4  
**Synonym(s):** Tretinoin  
**Molecular Formula:** C<sub>20</sub>H<sub>28</sub>O<sub>2</sub>  
**Molecular Weight:** 300.44  
**Storage:** 2°C – 8°C, Protect from light and store under inert gas  
**Date of Manufacture:** May 2, 2017  
**Retest Date:** May 1, 2020

Test	Specification	Result
Appearance	Yellow to light-orange crystalline powder	Conforms
Assay	98.0 – 102.0%	99.9%
Identification A (FTIR)	To match reference spectra	Conforms
Identification B (Absorbance)	Maximum absorption at 352nm	Conforms
Moisture (LOD)	≤ 0.5%	0.1%
Residue on Ignition	≤ 0.1%	0.04%
Heavy Metals	≤ 20ppm	< 20ppm
Limit of Isotretinoin	≤ 5.0%	0.06%
Residual Solvents		
Ethanol	≤ 3,000ppm	600ppm
Ethyl Acetate	≤ 5,000ppm	260ppm
Isopropanol	≤ 5,000ppm	45ppm
This lot meets the specifications for USP40.		

Approved by:

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Date: June 29, 2017