

CERTIFICATE OF ANALYSIS

Thermo Fisher Scientific's Quality System has been found to conform to Quality Management System Standard ISO9001:2015 by INTERTEK SAI Global Certificate Number. QMS42099

| | |
|---------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Catalogue Number | BP2618 |
| Lot Number | 2211969 |
| Description | Isopropanol, molecular Biology Grade Fisher Bioreagent |
| CAS Number | 67-63-0 |
| Quality Test/Release Date | 04/Feb/2022 |
| Expiry Phrase | Use within 5 years of opening |
| Country of Origin | Netherlands |
| Declaration of Origin | Synthetic |
| BSE/TSE | Not directly derived from or manufactured with any animal byproducts in any way (Including but not limited to fermentation or nutrient broth, catalysts, enzymes). |

| Result Name | Units | Specifications | Test Value |
|----------------------------------------------|------------|-----------------------|------------------|
| Acetone | % | <= 0.002 | None Detected |
| Assay (GC) | % | >= 99.9 | 99.97 |
| Chemical form | | Mobile liquid | Mobile liquid |
| Colour | APHA | <= 5 | <5 |
| DNase | | Must be 'Pass' | Pass |
| Fluorescence Background (as Quinine Sulfate) | ppb | <= 1 | 0.1 |
| OPTICAL ABS AT 205 NM | ABS. UNITS | <= 1 | 0.442 |
| OPTICAL ABS AT 220 NM | ABS. UNITS | <= 0.2 | 0.002 |
| OPTICAL ABS AT 230 NM | ABS. UNITS | <= 0.10 | 0 |
| OPTICAL ABS AT 254 NM | ABS. UNITS | <= 0.015 | 0 |
| Protease | | Must be 'Pass' | Pass |
| Refractive index @ 25 Deg.C | | >= 1.374 and <= 1.376 | 1.375 |
| Residue after evaporation (ppm) | ppm | <= 1.0 | None Detected |
| Solubility in water | | Must be 'Pass' | Pass |
| Substances reducing KMnO4 (Pass/Fail) | | Must be 'Pass' | Pass |
| Titrateable acid or base | meq/g | <= 0.0001 | 0.00005 |
| Visual colour | | Clear colourless | Clear colourless |
| Water | % | <= 0.05 | 0.003 |

A. Ganatra

Ashok Ganatra
Supervisor, QC

Products are processed under ISO 9001:2015 quality management systems and samples are tested for conformance to the noted specifications. Certain data may have been supplied by third parties. We disclaim the implied warranties of merchantability and fitness for a particular purpose, and the accuracy of third-party data or information associated with the product. Products are for research use or further manufacturing. Products are not for direct administration to humans or animals. It is the responsibility of the final formulator or end user to determine suitability, and to qualify and/or validate each product for its intended use.

Note: The data listed is valid for all package sizes of this lot of this product, expressed as an extension of the catalogue number listed above.