Thermo Fisher Scientific Baltics UAB
V. A. Graiciuno 8, Vilnius, LT-02241 Lithuania
Phone +370 700 55131, Fax +370 70055132
www.thermofisher.com
cofarequests@thermofisher.com Company code
122351387, VAT code LT223513811

ThermoFisher SCIENTIFIC
The world leader in serving science

thermo scientific

CERTIFICATE OF ANALYSIS

R1481 NTP Set, Tris buffered

Packaging Lot: **2740900**
Expiry Date: 30.09.2024 (DD.MM.YYYY)
Storage: at -20±5°C

Filling Lot: **91283128 ATP, Tris buffered**
Expiry Date: 30.09.2024 (DD.MM.YYYY)
Quantity: 0.25 mL
Concentration: 100 mM
Composition: ATP, 100 mM is a high purity adenosine 5'-triphosphate supplied as 100 mM aqueous solution titrated to pH 7.5 with Tris.

QUALITY CONTROL

Parameter	Method	Requirement	Result
Concentration	Spectrophotometry under UV; milimolar absorption coefficient is 15.4 $mM^{-1}cm^{-1}$ at 259 nm (pH 7.0).	100 ± 3 mM	Conforms
pH	Determined according to Ph. Eur. 2.2.3	7.3 – 7.5	Conforms
Identity	Determined by HPLC.	Conforms to standard	Conforms
Purity	Determined by HPLC.	≥ 99% triphosphate	Conforms
Base purity	Determined by HPLC.	≥ 99.5% adenosine	Conforms
Endo-, and Exonucleases	Fluorimetric assay.	Not detectable (< LOQ, 0.67 pg/µL)	Conforms
Ribonucleases	Incubation of RNA transcript with ATP.	Not detectable	Conforms
λ_{max}	Spectrophotometric measurements at pH 7.0.	259 ± 2 nm	Conforms
A_{250}/A_{260}	Spectrophotometric measurements at pH 7.0.	0.80 ± 0.03	Conforms
A_{280}/A_{260}	Spectrophotometric measurements at pH 7.0.	0.15 ± 0.05	Conforms
Testing in transcription	In vitro transcription of 100 nt RNA transcript.	Conforms	Conforms

Filling Lot: **2728483 CTP, Tris buffered**
Expiry Date: 28.02.2025 (DD.MM.YYYY)
Quantity: 0.25 mL
Concentration: 100 mM

Thermo Fisher Scientific Baltics UAB
V. A. Graiciuno 8, Vilnius, LT-02241 Lithuania
Phone +370 700 55131, Fax +370 70055132
www.thermofisher.com
cofarequests@thermofisher.com Company code
122351387, VAT code LT223513811

Composition: CTP, 100 mM is a high purity cytidine 5'-triphosphate supplied as 100 mM aqueous solution titrated to pH 7.5 with Tris.

QUALITY CONTROL

Parameter	Method	Requirement	Result
Concentration	Spectrophotometry under UV; milimolar absorption coefficient is 9.0 $mM^{-1}cm^{-1}$ at 271 nm (pH 7.0)	100 ± 3 mM	Conforms
pH	Determined according to Ph. Eur. 2.2.3	7.3 – 7.5	Conforms
Identity	Determined by HPLC.	Conforms to standard	Conforms
Purity	Determined by HPLC.	≥ 99% triphosphate	Conforms
Base purity	Determined by HPLC.	≥ 99.5% cytidine	Conforms
Endo-, and Exonucleases	Fluorimetric assay.	Not detectable (< LOQ, 0.67 pg/µL)	Conforms
Ribonucleases	Incubation of RNA transcript with CTP.	Not detectable	Conforms
λ_{max}	Spectrophotometric measurements at pH 7.0.	271 ± 2 nm	Conforms
A_{250}/A_{260}	Spectrophotometric measurements at pH 7.0.	0.84 ± 0.02	Conforms
A_{280}/A_{260}	Spectrophotometric measurements at pH 7.0.	0.97 ± 0.02	Conforms
A_{290}/A_{260}	Spectrophotometric measurements at pH 7.0.	0.32 ± 0.03	Conforms
Testing in transcription	In vitro transcription of 100 nt RNA transcript.	Conforms	Conforms

Filling Lot: **2710688 GTP, Tris buffered**
Expiry Date: 31.08.2025 (DD.MM.YYYY)
Quantity: 0.25 mL
Concentration: 100 mM
Composition: GTP, 100 mM is a high purity guanosine 5'-triphosphate supplied as 100 mM aqueous solution titrated to pH 7.5 with Tris.

QUALITY CONTROL

Parameter	Method	Requirement	Result
Concentration	Spectrophotometry under UV; milimolar absorption coefficient is 13.7 $mM^{-1}cm^{-1}$ at 253 nm (pH 7.0)	100 ± 3 mM	Conforms
pH	Determined according to Ph. Eur. 2.2.3	7.3 – 7.5	Conforms
Identity	Determined by HPLC.	Conforms to standard	Conforms

Thermo Fisher Scientific Baltics UAB
V. A. Graiciuno 8, Vilnius, LT-02241 Lithuania
Phone +370 700 55131, Fax +370 70055132
www.thermofisher.com
cofarequests@thermofisher.com Company code
122351387, VAT code LT223513811

Purity	Determined by HPLC.	≥ 99% triphosphate	Conforms
Base purity	Determined by HPLC.	≥ 99.5% guanosine	Conforms
Endo-, and Exonucleases	Fluorimetric assay.	Not detectable (< LOQ, 0.67 pg/µL)	Conforms
Ribonucleases	Incubation of RNA transcript with GTP.	Not detectable	Conforms
λ_{max}	Spectrophotometric measurements at pH 7.0.	253 ± 2 nm	Conforms
A_{250}/A_{260}	Spectrophotometric measurements at pH 7.0.	1.18 ± 0.04	Conforms
A_{280}/A_{260}	Spectrophotometric measurements at pH 7.0.	0.67 ± 0.03	Conforms
A_{290}/A_{260}	Spectrophotometric measurements at pH 7.0.	0.28 ± 0.03	Conforms
Testing in transcription	In vitro transcription of 100 nt RNA transcript.	Conforms	Conforms

Filling Lot: **2738067 UTP, Tris buffered**
Expiry Date: 31.10.2024 (DD.MM.YYYY)
Quantity: 0.25 mL
Concentration: 100 mM
Composition: UTP, 100 mM is a high purity uridine 5'-triphosphate supplied as 100 mM aqueous solution titrated to pH 7.5 with Tris.

QUALITY CONTROL

Parameter	Method	Requirement	Result
Concentration	Spectrophotometry under UV; milimolar absorption coefficient is 10.0 $mM^{-1}cm^{-1}$ at 262 nm (pH 7.0)	100 ± 3 Mm	Conforms
pH	Determined according to Ph. Eur. 2.2.3	7.3 – 7.5	Conforms
Identity	Determined by HPLC.	Conforms to standard	Conforms
Purity	Determined by HPLC.	≥ 99% triphosphate	Conforms
Base purity	Determined by HPLC.	≥ 99.5% uridine	Conforms
Endo-, and Exonucleases	Fluorimetric assay.	Not detectable (< LOQ, 0.67 pg/µL)	Conforms
Ribonucleases	Incubation of RNA transcript with UTP.	Not detectable	Conforms
λ_{max}	Spectrophotometric measurements at pH 7.0.	262 ± 2 nm	Conforms

Thermo Fisher Scientific Baltics UAB
V. A. Graiciuno 8, Vilnius, LT-02241 Lithuania
Phone +370 700 55131, Fax +370 70055132
www.thermofisher.com
cofarequests@thermofisher.com Company code
122351387, VAT code LT223513811

A_{250}/A_{260}	Spectrophotometric measurements at pH 7.0.	0.74 ± 0.03	Conforms
A_{280}/A_{260}	Spectrophotometric measurements at pH 7.0.	0.37 ± 0.03	Conforms
Testing in transcription	In vitro transcription of 100 nt RNA transcript.	Conforms	Conforms

ISO CERTIFICATION

Manufactured by Thermo Fisher Scientific Baltics UAB, in compliance with ISO 9001 and ISO 13485 certified quality management system.

Quality authorized by QC: J. Žilinskienė