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dNTP Sets

Unmodified deoxy-Nucleoside triphosphates (dNTPs)

Component	Cat#	M3015.4020 20µmol	M3015.4025 25µmol	M3015.4100 100µmol	M3015.4125 125µmol	M3015.4500 500µmol	Colour code of cap
Set of dATP, dCTP, dGTP, dTTP solution adjusted to pH 7.0. 100mM*							
dATP		200µL	250µL	1mL	1.25mL	5x 1mL	blue
dCTP		200µL	250µL	1mL	1.25mL	5x 1mL	violet
dGTP		200µL	250µL	1mL	1.25mL	5x 1mL	red
dTTP		200µL	250µL	1mL	1.25mL	5x 1mL	green

* Each tube contains a solution that is 100mM – 110mM of the respective dNTP. The tubes are labelled with the catalogue number of the respective dNTPs (dATP = M3018 (with blue cap); dCTP = M3019 (with violet cap); dGTP = M3020 (with red cap); dTTP = M3021 (with green cap)).

Description

dNTPs are the building material for DNA molecules and used in various assays based on PCR. The purity of dNTPs is highly important for assay results' accuracy. For that reason, the use of highly purified dNTP (as these available from Genaxxon) preparation is particularly recommended for sensitive techniques such as long-range PCR, RT-PCR, multiplex, mutagenesis experiments and realtime PCR applications.

Genaxxon offers a complete range of nucleoside-5'-triphosphates in highly purified form in different convenient solutions that are HPLC tested and can be used for in highly sensitive assays. The dNTP mixes are ready-to-use for DNA-polymerisation reactions, all DNA labelling- and sequencing reactions. The dNTP mixes are designed to save time and prevent the possibility for contamination by reducing pipetting steps.

All solutions are prepared using the following substances:

dATP Na4 x 3 H2O, 2'-Deoxyadenosine-5'-triphosphate tetrasodium salt. C10H16N5O12P3 x Na4, **Cat #: M3402**
MW = 583.15 g/mol (491.18 g/mol free acid)
λ_{max} 259nm; ε 15.4 λ $mmol^{-1}$ cm^{-1} (Tris/HCl, pH7.0)

dCTP Na4 x 3 H2O, 2'-Deoxycytidine-5'-triphosphate tetrasodium salt. C9H16N3O13P3 x Na4, **Cat #: M3401**
MW = 5559.11 g/mol (467.15 g/mol free acid)
λ_{max} 271nm; ε 8.9 λ $mmol^{-1}$ cm^{-1} (Tris/HCl, pH7.0)

dGTP Na4 x 3 H2O, 2'-Deoxyguanosine-5'-triphosphate tetrasodium salt. C10H16N5O13P3 x Na4, **Cat #: M3403**
MW = 599.14 g/mol (507.18 g/mol free acid)
λ_{max} 252nm; ε 13.7 λ $mmol^{-1}$ cm^{-1} (Tris/HCl, pH7.0)

dTTP Na4 x 3 H2O, 2'-Deoxythymidine-5'-triphosphate tetrasodium salt. C10H17N2O14P3 x Na4, **Cat #: M3400**
MW = 574.13 g/mol (482.17 g/mol free acid)
λ_{max} 262nm; ε 9.6 λ $mmol^{-1}$ cm^{-1} (Tris/HCl, pH7.0)

Purity: each dNTP solution (set and mix): min. 99% (HPLC)

pH-Wert: 7.0 +/- 0.1

Storage

dNTPs are stable at -20°C / -70°C in a constant-temperature freezer for at least 24 months.
dNTPs can be kept at RT temperature for a cumulative period of about one week.
Avoid multiple thawing/freezing. For long term usage we recommend to aliquot nucleotides.

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