Datasheet

ddNTPs - Dideoxynucleotide triphosphates

Used in single nucleotide polymorphisms and as 3´-end chain terminators in Sanger sequencing

Description:
ddNTPs from GeneON in combination with modified Taq DNA Polymerase are used as 3'-end chain terminators in Sanger sequencing. @ pH 8,0 in water the high purity between more than 99 % (HPLC) offers a great performance in chain termination sequencing.

Tested and designed especially for Sequencing reactions!

Application:
2‘,3‘-Dideoxynucleoside triphosphates inhibit the chain elongation of a given primer catalyzed by the DNA polymerase (e.g. Klenow enzyme) and are therefore used for DNA sequencing according to Sanger. Sequencing is achieved by including in each reaction a dideoxynucleotide that acts as a chain terminator. Four reactions are set up, each containing the same template and primer but a chain terminator specific for A, C, G or T. Because only a small amount of the chain terminator is included, incorporation into the new DNA strand is a random event. Each reaction therefore generates a collection of fragments, but every DNA strand will end at the same type of base (A, C, G or T).

Standard protocol for 50 µl "Termination" Mix:

Component	Volume	final concentration
dNTP's (1 mM each)	5 µl of each dNTP	400 µM
ddNTP's (10 µM)	2 µl	0,4 mM
Water	25 µl	
Total volume	50 µl	

Note:
- spin all reagents in the vial before opening and after setting up the Termination Mix

Quality tests:
The ddNTPs are tested:
- for the absence the absence of DNases and RNases
- for successfully sequencing reaction

Transport: on blue ice or ambient temperature
Storage: few day at room temperature; for long term storage @ -20 °C;

Ordering details:

Cat.-no	Description	Amount
110-020	Set of ddTNP 4x10 mM	4x200µl (4x2 µmol)
110-025	Set of ddNTP 4x10 mM	4x1000µl (4x10 µmol)
110-020A 110-025A	ddATP 10 mM	200µl (2 µmol) 1000µl (10 µmol)
110-020C 110-025C	ddCTP 10 mM	200µl (2 µmol) 1000µl (10 µmol)
110-020G 110-025G	ddGTP 10 mM	200µl (2 µmol) 1000µl (10 µmol)
110-020T 110-025T	ddTTP 10 mM	200µl (2 µmol) 1000µl (10 µmol)

.. a good decision ..