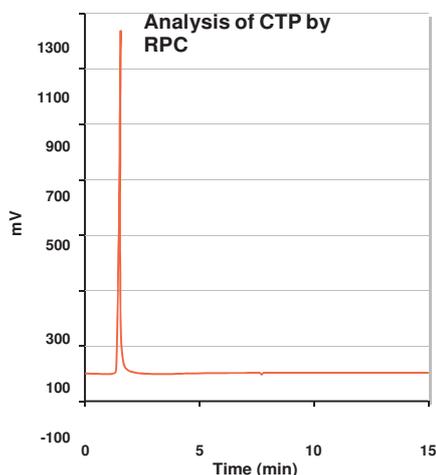


SILANTES deoxy- and ribo-NTPs/NMPs and Nucleosides are available uniformly labeled with ^2H or ^{13}C or ^{15}N or combinations

STABLE ISOTOPE LABELED NUCLEOSIDETRIPHOSPHATES

Structural studies on large DNA and RNA molecules by nuclear magnetic resonance (NMR) requires labeling of these molecules with stable isotopes. Silantes offers a wide range of stable isotope labeled ribo- and deoxyribo-nucleosidetriphosphates (rNTP, dNTP) for the synthesis of oligonucleotides.

Fig. 2



SILANTES TECHNOLOGY

Silantes dNTPs and rNTPs are made from DNA and RNA purified from bacteria. The bacterial strain used is a chemolithoautotrophic organism which grows on isotopically labeled H_2 , O_2 and CO_2 . The extracted RNA or DNA is enzymatically hydrolysed. The isolated 5'-monophosphates (NMPs) are enzymatically phosphorylated into 5'-dNTPs and 5'-rNTP and purified by ion chromatography and reversed phase HPLC.

ADDED VALUE

Our technology for in vivo enrichment of stable isotopes enables us to offer the ribo- and deoxyribo-nucleosidetriphosphates at very competitive prices.

ISOTOPE ENRICHMENT

Silantes NTPs can be supplied in any combination of ^2H , ^{13}C and ^{15}N . The isotopic purity for all isotopes is $>98\%$.

QUALITY

The quality of dNTPs and rNTPs is tested with respect to chemical purity ($>96\%$). Fig. 2 shows an example of the elution profile of reversed phase chromatography. The biological competence is analyzed by PCR and in vitro RNA synthesis, respectively. NTPs are available lyophilized or in solution (C= 100mM in water, pH 8,0)

CONCLUSION

Silantes offers a full range of stable isotope labeled ribo- and deoxyribo- nucleoside-triphosphates:

- with full biological competence
- of $>98\%$ isotopic purity
- of $>95\%$ chemical purity
- at very competitive prices

If you have any further questions, please do not hesitate to contact Silantes at:

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