

SUPPORTING INFORMATION TO

Synthesis of aminoacylated N^6, N^6 -dimethyladenosine solid support for efficient access to hydrolysis-resistant 3'-charged tRNA mimics

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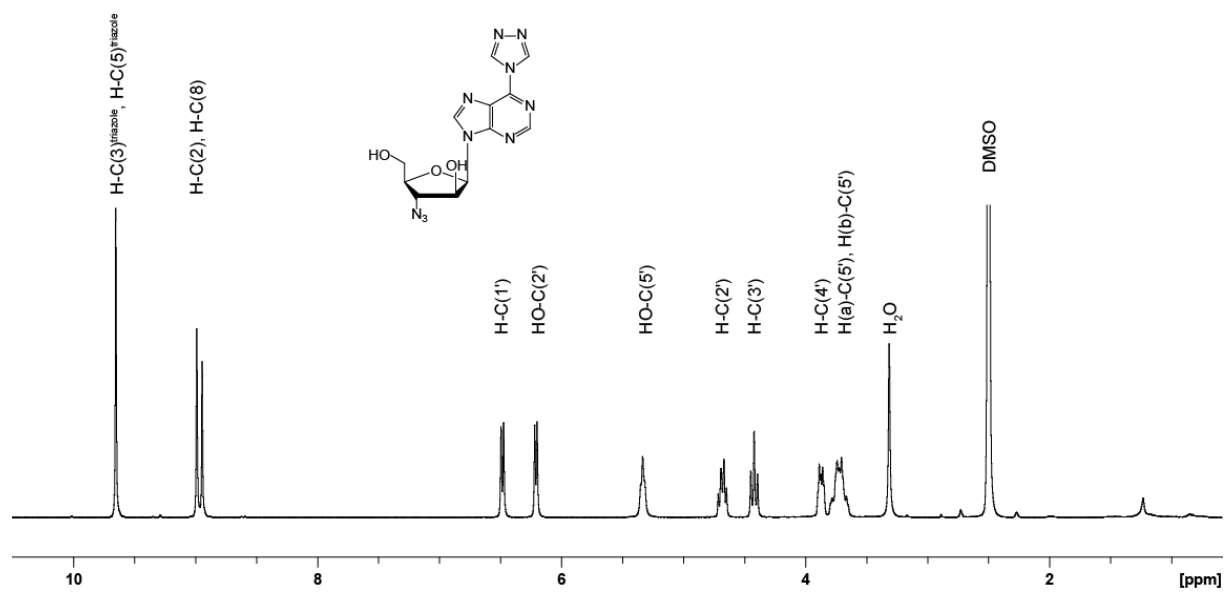
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^1H and ^{13}C NMR spectra of compounds 2 to 7, and 9

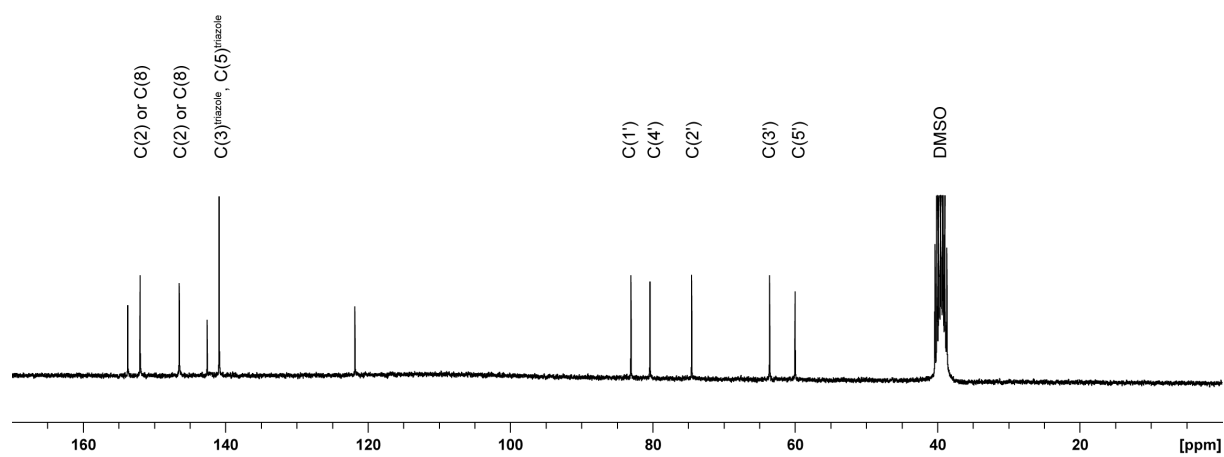
compound 2	S2
compound 3	S3
compound 4	S4
compound 4a	S5
compound 5	S6
compound 5a	S7
compound 6	S8
compound 7	S9
compound 9	S10

9-(3'-Azido-3'-deoxy- β -D-arabinofuranosyl)-6-(1,2,4-triazol-4-yl)purine (2)

$^1\text{H NMR}$ (300 MHz, DMSO- d_6) of compound **2**:

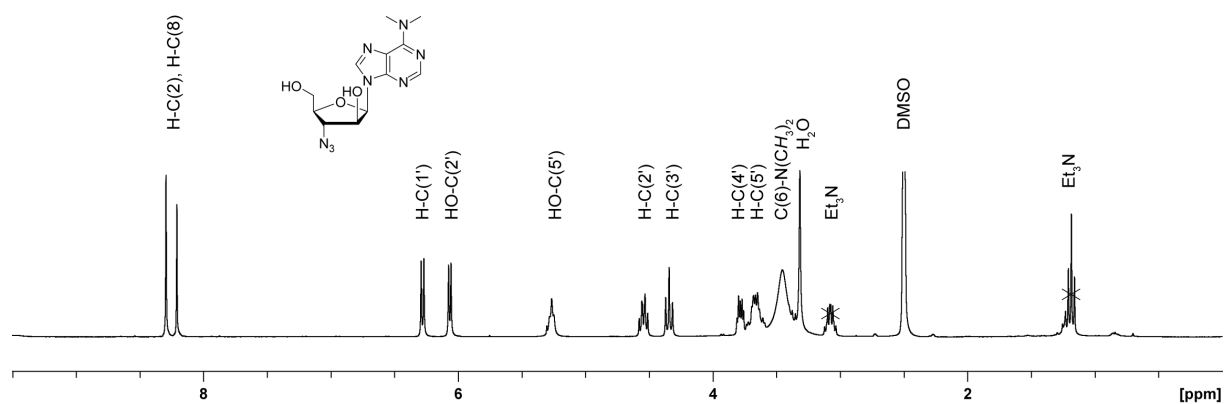


$^{13}\text{C NMR}$ (75 MHz, DMSO- d_6) of compound **2**:

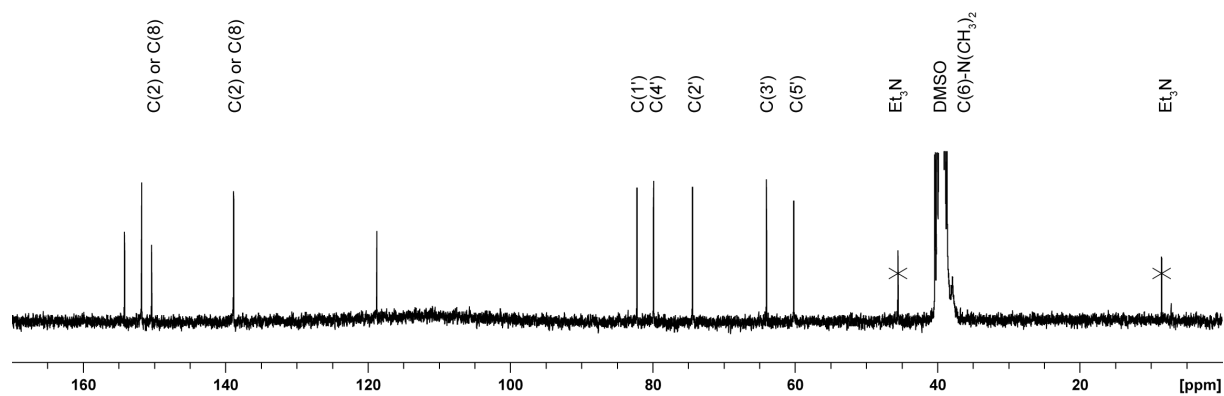


9-(3'-Azido-3'-deoxy- β -D-arabinofuranosyl)-6-(dimethylamino)purine (**3**)

$^1\text{H NMR}$ (300 MHz, DMSO- d_6) of compound **3**:

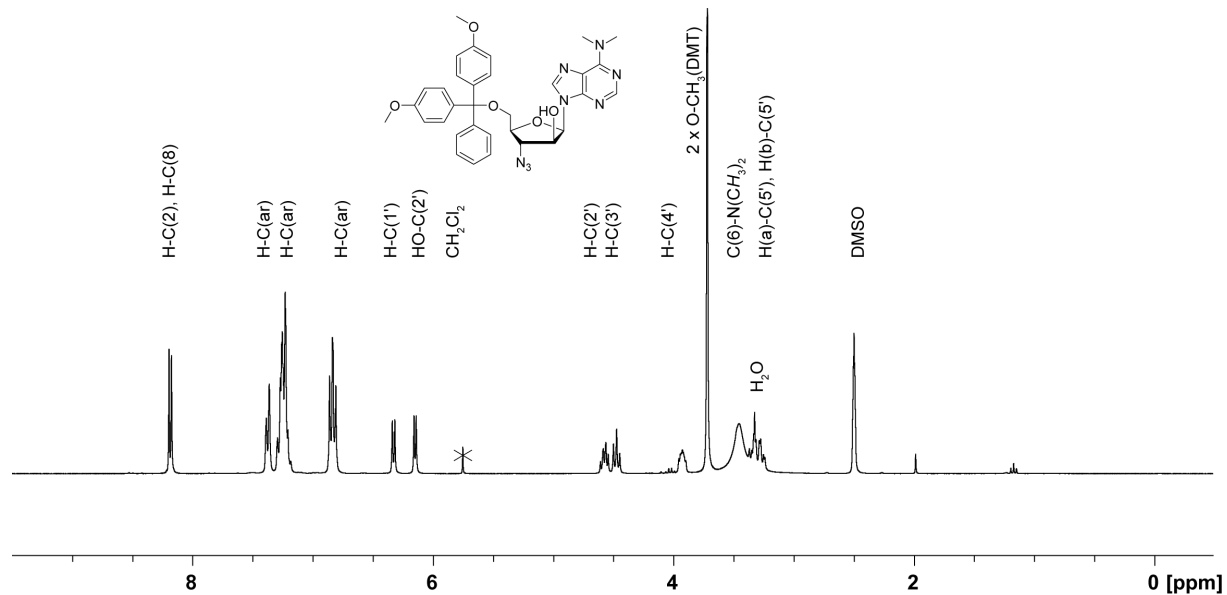


$^{13}\text{C NMR}$ (75 MHz, DMSO- d_6) of compound **3**:

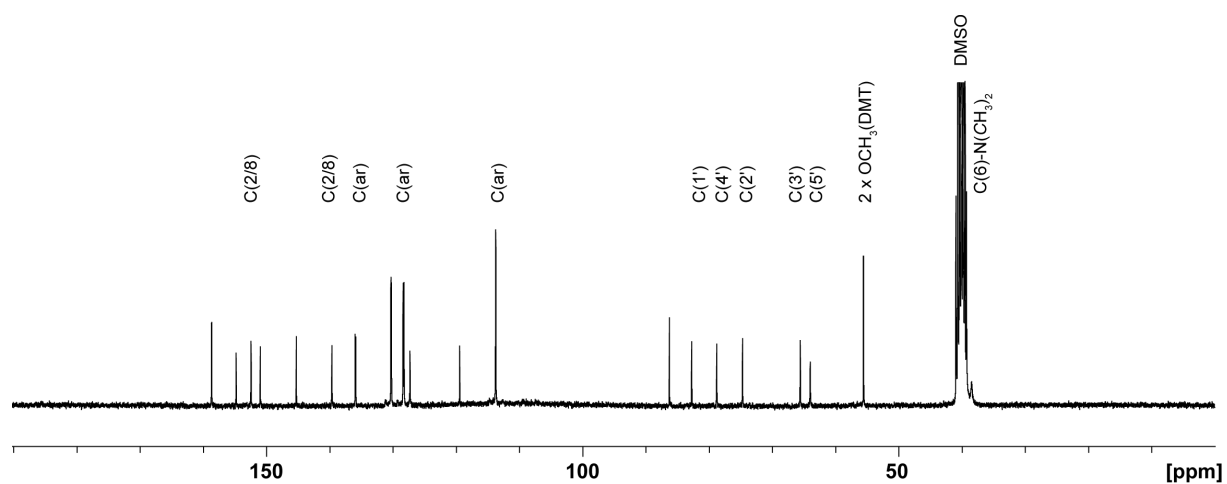


9-[3'-Azido-3'-deoxy-5'-O-(4,4'-dimethoxytrityl)- β -D-arabinofuranosyl]-6-(dimethylamino)purine (4)

^1H NMR (300 MHz, DMSO- d_6) of compound **4**:

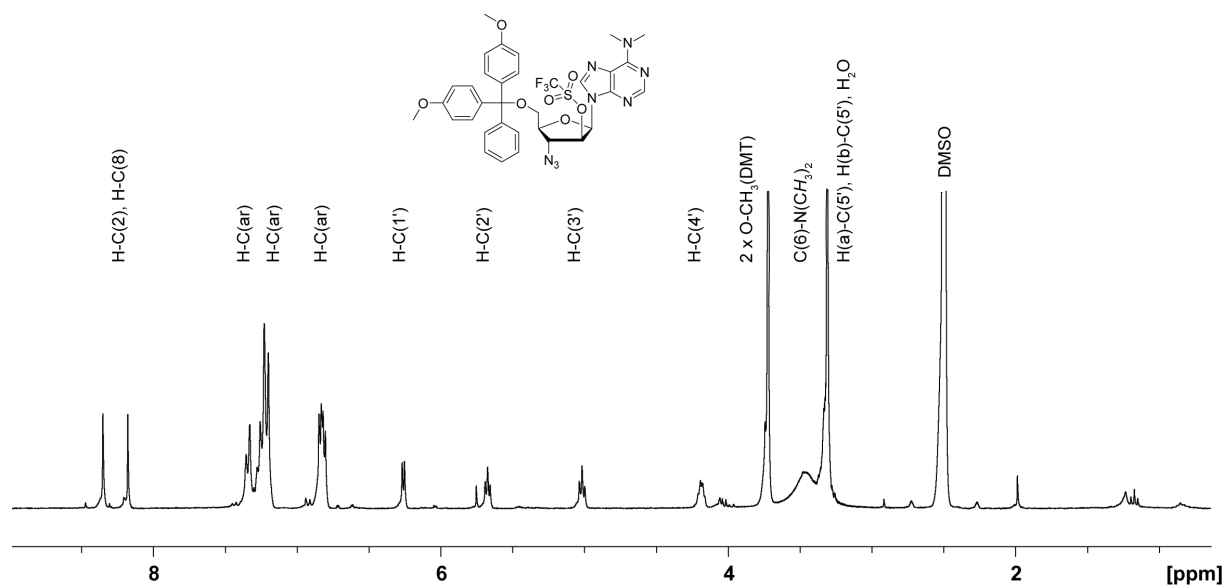


^{13}C NMR (75 MHz, DMSO- d_6) of compound **4**:



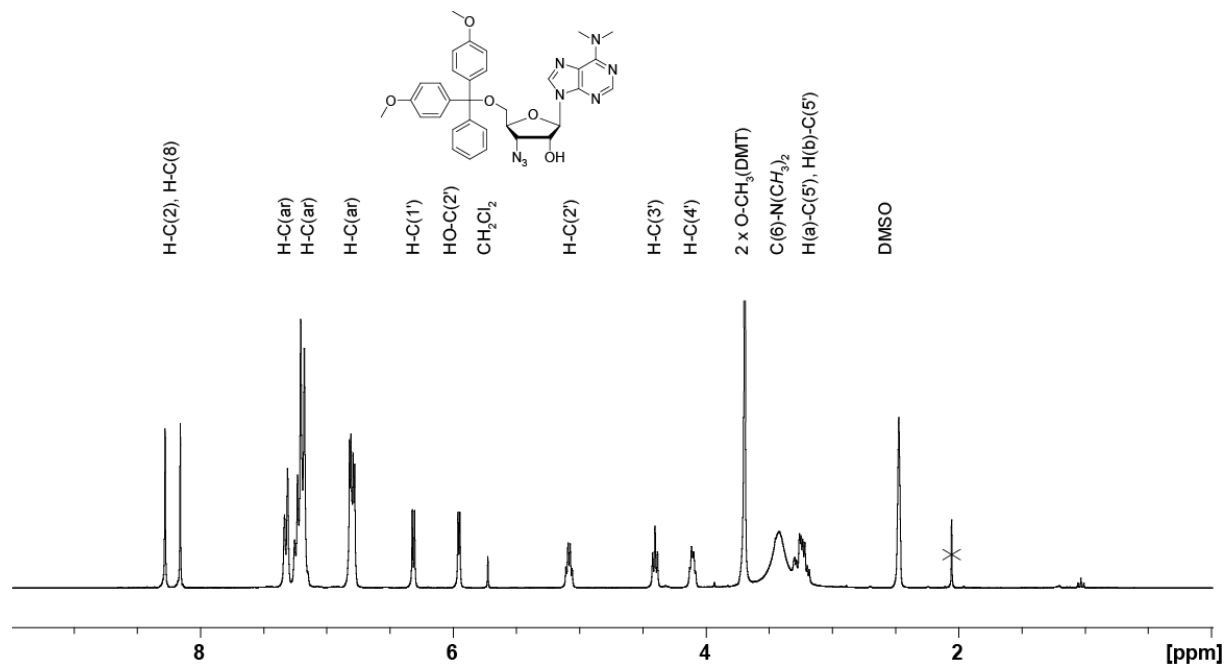
9-[3'-Azido-3'-deoxy-2'-O-(trifluoromethanesulfonyl)-5'-O-(4,4'-dimethoxytrityl)- β -D-arabinofuranosyl]-6-(dimethylamino)purine (4a)

$^1\text{H NMR}$ (300 MHz, DMSO- d_6) of compound **4a**:

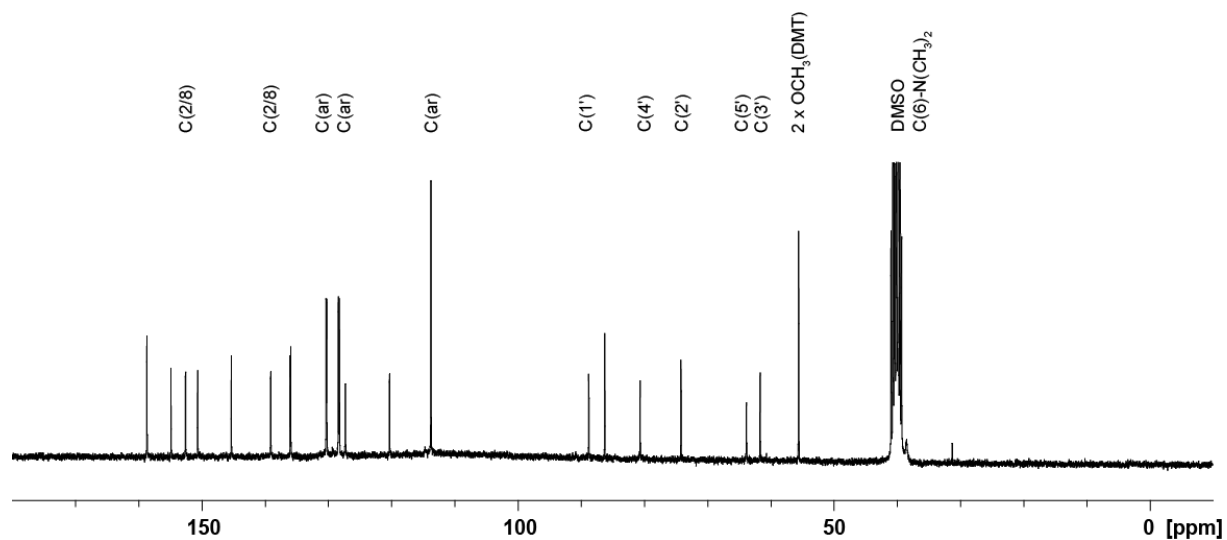


3'-Azido-3'-deoxy-5'-O-(4,4'-dimethoxytrityl)-N⁶,N⁶-dimethyl-β-D-adenosine (5)

¹H NMR (300 MHz, DMSO-d₆) of compound **5**:

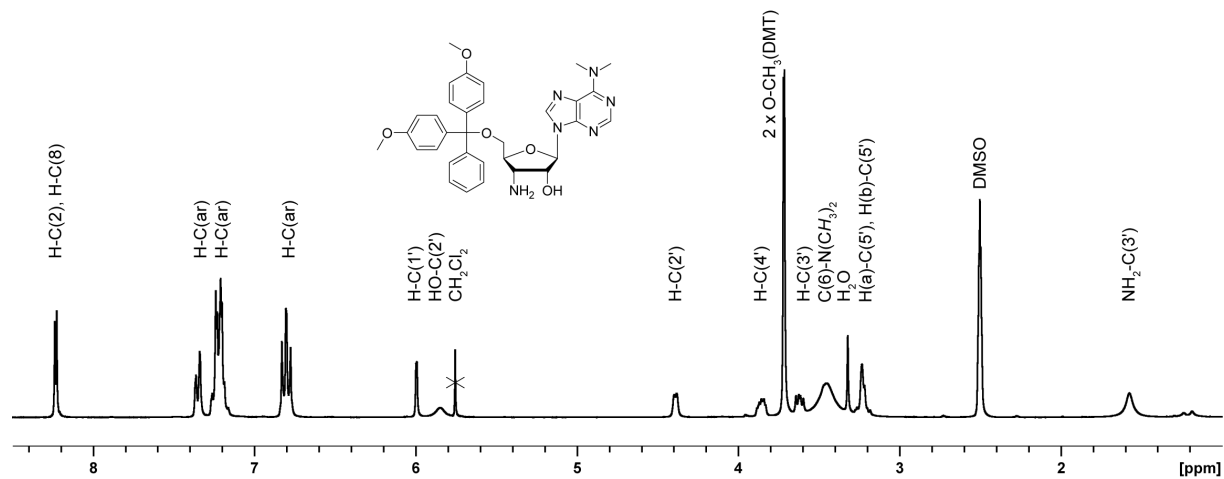


¹³C NMR (75 MHz, DMSO-d₆) of compound **5**:

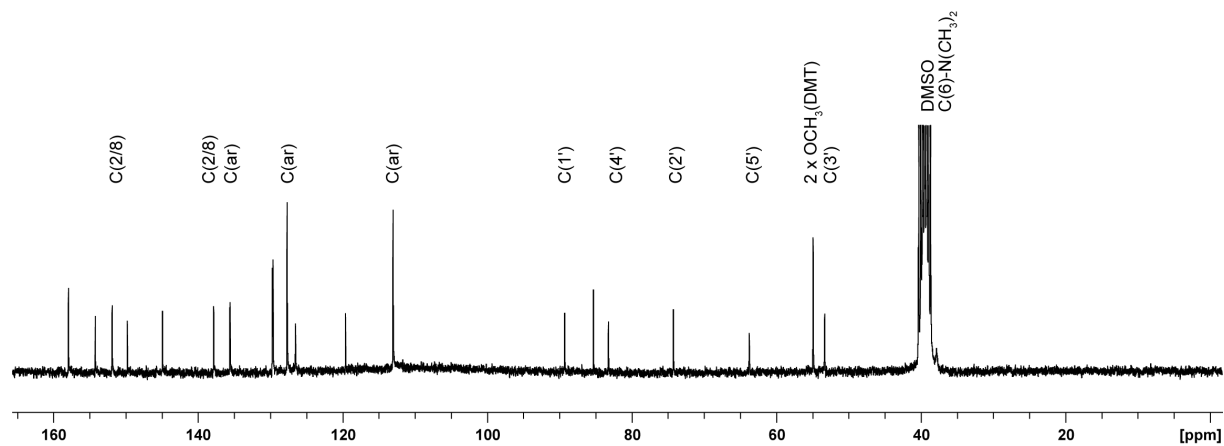


3'-Amino-3'-deoxy-5'-O-(4,4'-dimethoxytrityl)-N⁶,N⁶-dimethyl-β-D-adenosine (5a)

¹H NMR (300 MHz, DMSO-d₆) of compound **5a**:

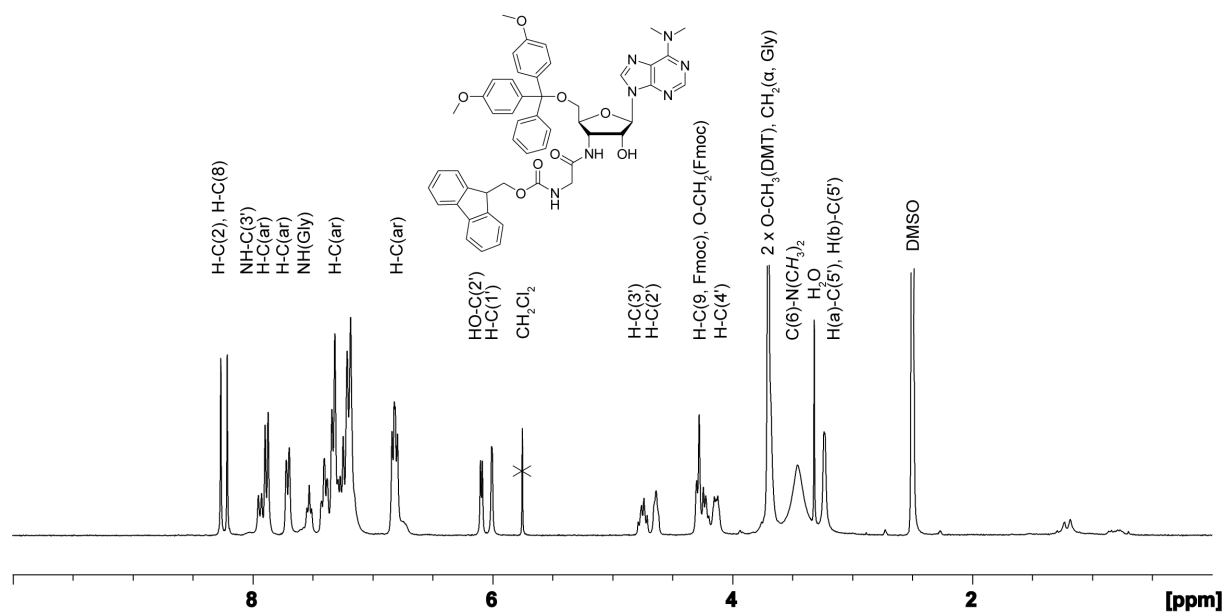


¹³C NMR (75 MHz, DMSO-d₆) of compound **5a**:

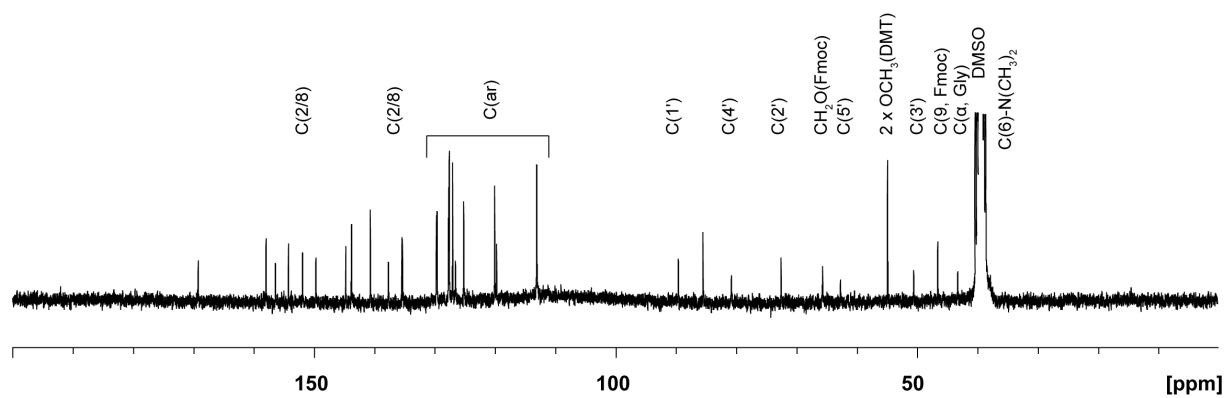


3'-{[N-(9-fluorenyl)methoxycarbonyl-glycyl]amino}-3'-deoxy-5'-O-(4,4'-dimethoxytrityl)-N⁶,N⁶-dimethyl-β-D-adenosine (6)

¹H NMR (300 MHz, DMSO-d₆) of compound **6**:

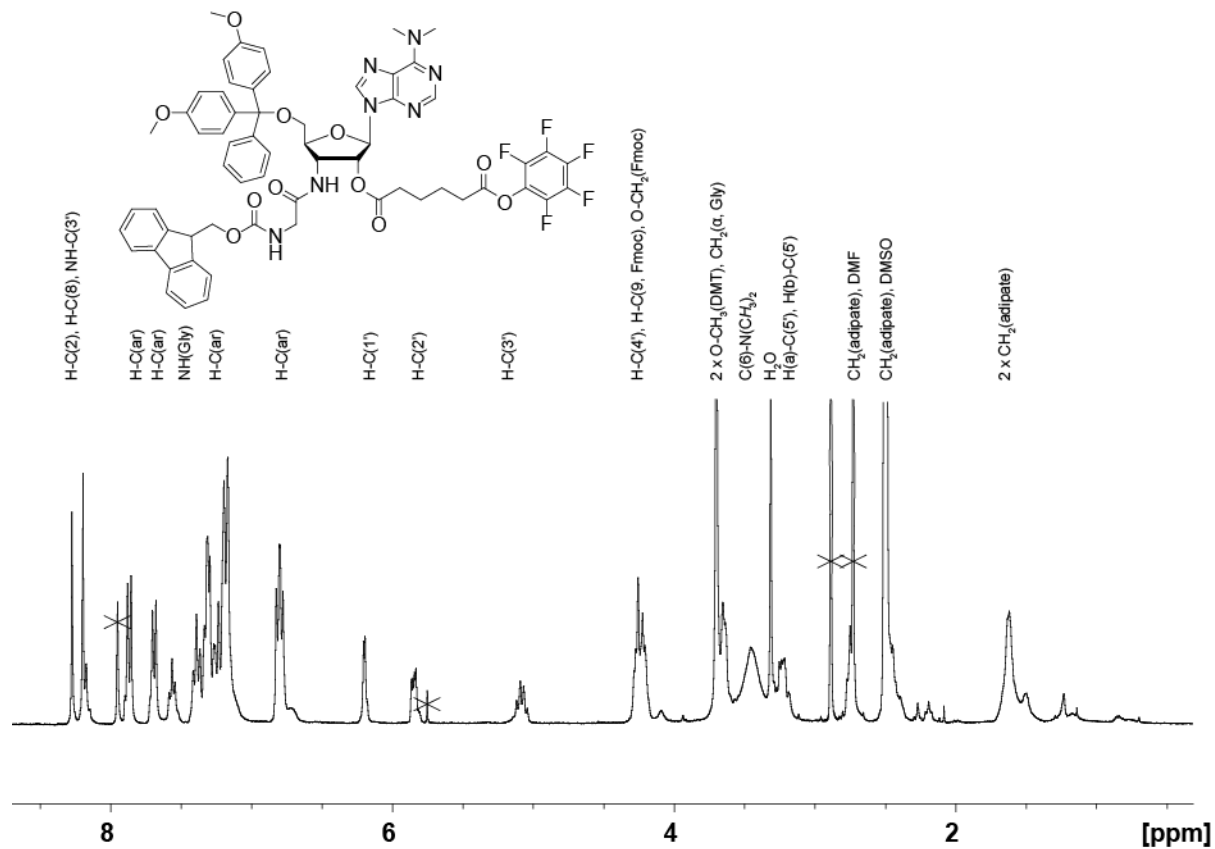


¹³C NMR (75 MHz, DMSO-d₆) of compound **6**:



3'-{[N-(9-fluorenyl)methoxycarbonyl-glycyl]amino}-3'-deoxy-5'-O-(4,4'-dimethoxytrityl)-N⁶,N⁶-dimethyl-2'-O-[1,6-dioxo-6-(pentafluorophenoxy)hexyl]-β-D-adenosine (7)

¹H NMR (300 MHz, DMSO-d₆) of compound 7:



3'-{[N-(9-fluorenyl)-methoxycarbonyl-N⁶,N⁶,N⁶-(trimethyl)-L-lysyl]amino}-3'-deoxy-5'-O-(4,4'-dimethoxytrityl)-N⁶,N⁶-dimethyl-β-D-adenosine (9)

¹H NMR (300 MHz, DMSO-d₆) of compound **9**:

