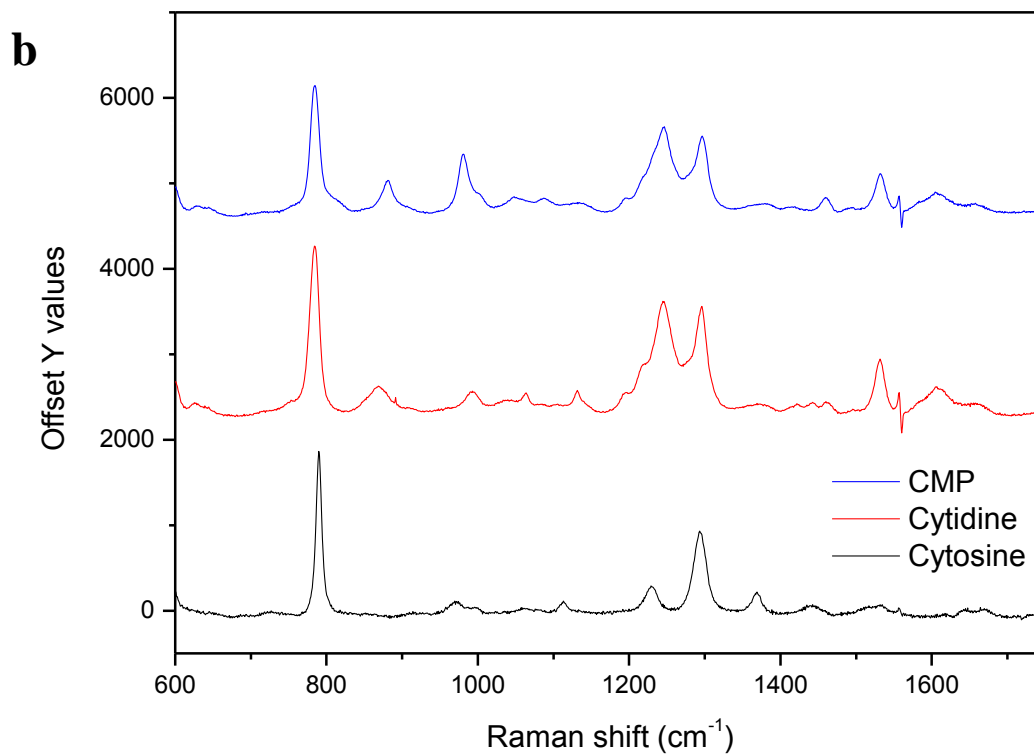
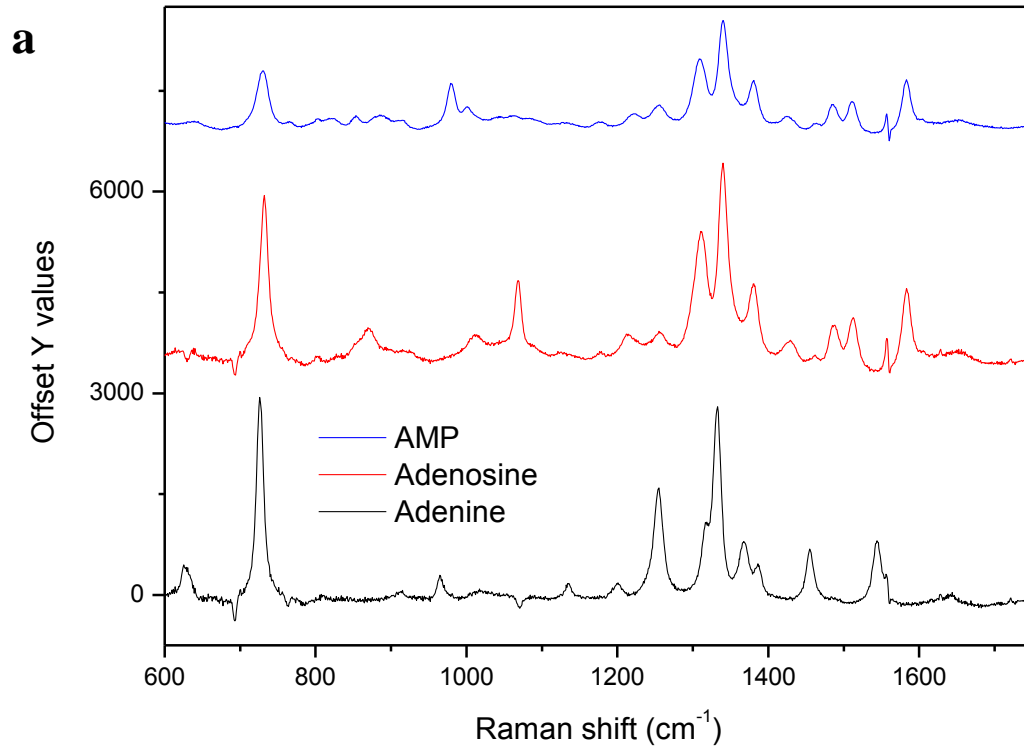
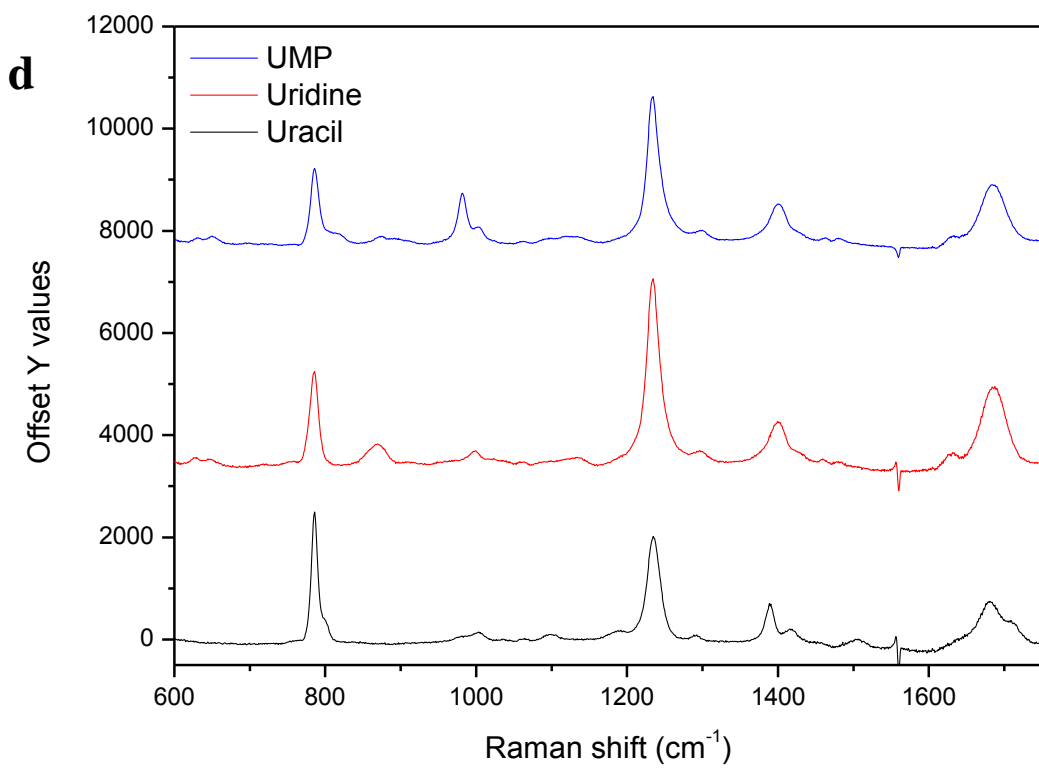
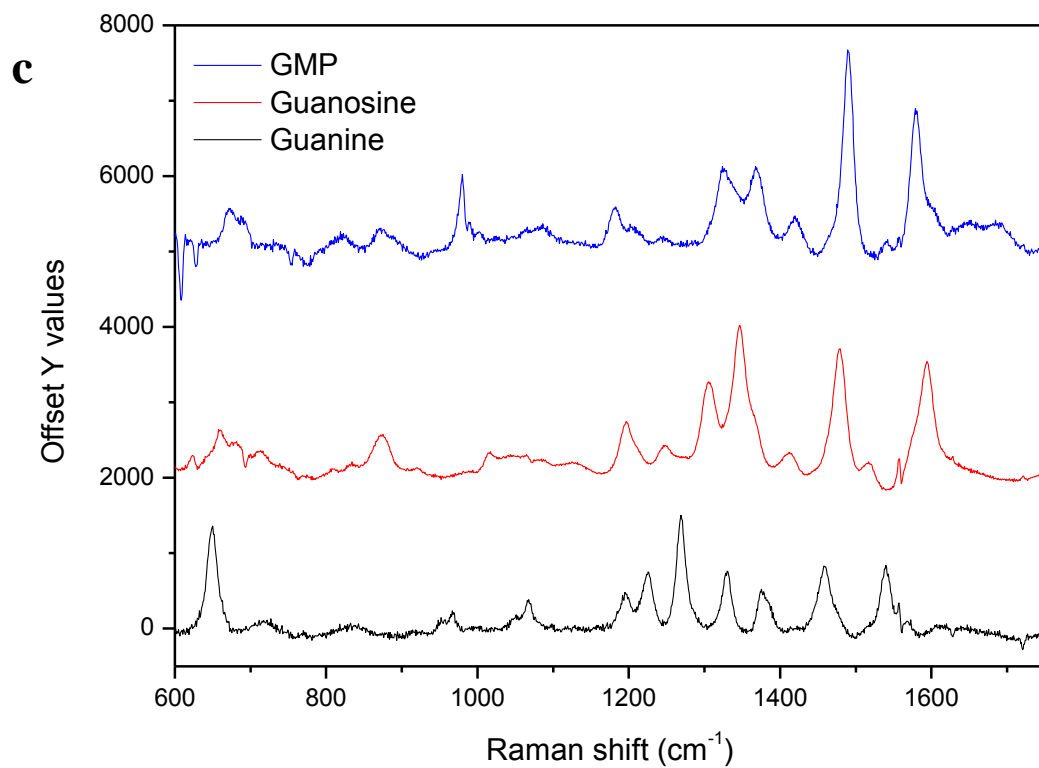

Supplimentary Information Figure Legends:

S1: Raman spectra of RNA building blocks and related compounds. All spectra are the average of 3 Raman spectra and have been baseline corrected, buffer subtracted and scaled to an effective concentration of 50 mM. (a) Adenine related molecules: adenine (black), adenosine (red) and adenosine monophosphate (blue). The measured concentrations were 47.81 mM, 46.40 mM and 56.75 mM, respectively. (b) Cytosine related molecules: cytosine (black), cytidine (red) and cytidine monophosphate (blue). The measured concentrations were 47.70 mM, 56.74 mM and 55.38 mM, respectively. (c) Guanine related molecules: guanine (black), guanosine (red) and guanosine monophosphate (blue). The measured concentrations were 46.19 mM, 63.90 mM and 46.67 mM, respectively. (d) Uracil related molecules: uracil (black), uridine (red) and uridine monophosphate (blue). The measured concentrations were 48.09 mM, 48.32 mM and 67.64 mM, respectively. (e) Ribose and phosphate molecules: ribose (black), ribose phosphate (red) and sodium phosphate (blue). The measured concentrations were 287.08 mM, 434.58 mM and 47.75 mM, respectively.

S2: Second derivative spectra of the measured RNA Raman spectra; SL-HIV1 (black), SL-APTR (red) and SL-SARS (blue). The positions of peaks discussed in the text are noted.

S1:





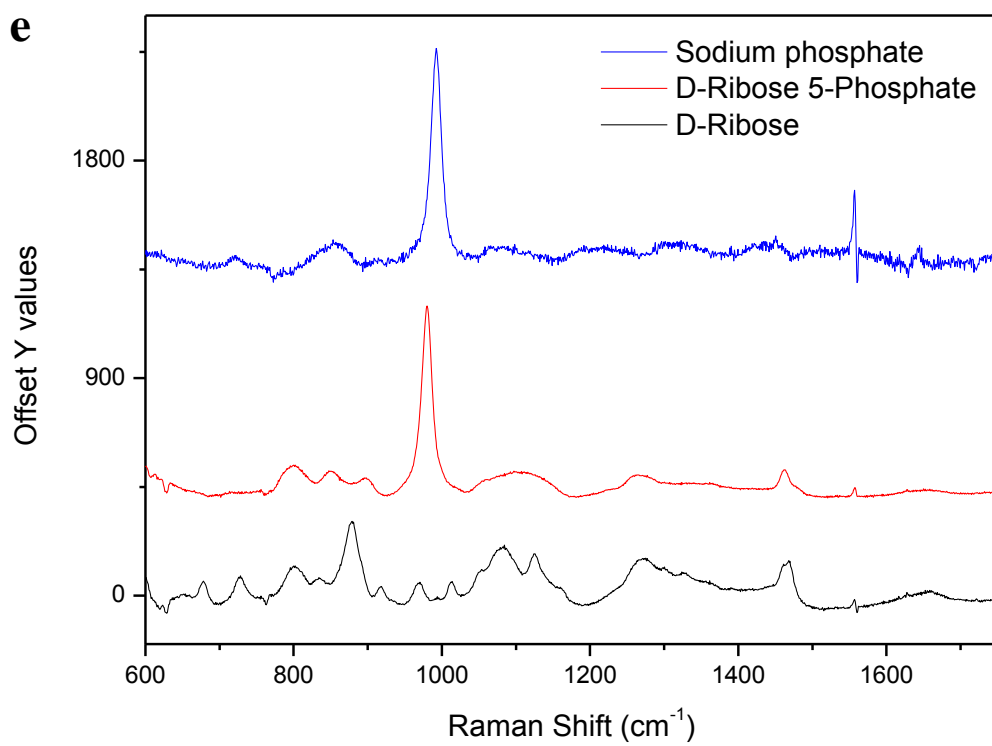


Figure S2.

