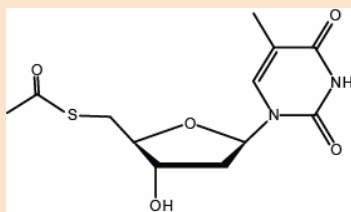
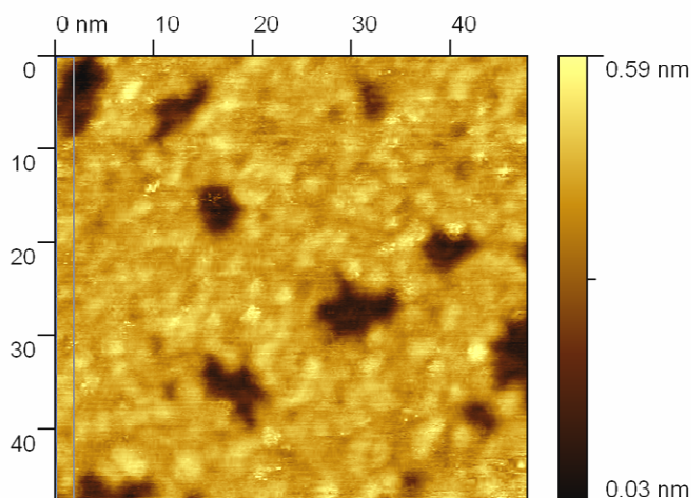


Chemical name**5'-S-Acetyl-5'-thiothymidine****Structure****Formula** C₁₂H₁₆N₂O₅S**MW** 300.33**Appearance** White powder**Solubility** Polar organic solvents such as chloroform, methanol, DMF, and DMSO**Storage** Room temperature under nitrogen**Handling** Degassed solvents and under nitrogen.**Usage**

We have used this molecule to form monolayers on gold substrates for studies of base pairing in nanojunctions using STM.¹ The acetyl group can be removed *in situ* by addition of pyrrolidine into the monolayer solution.

1. (a) He, J.; Lin, L.; Zhang, P.; Lindsay, S., Identification of DNA Base pairing via Tunnel-Current Decay. *NANO LETTERS* **2007**, *7* (12), 3854-3858; (b) Chang, S.; He, J.; Lin, L.; Zhang, P.; Liang, F.; Young, M.; Huang, S.; Lindsay, S., Tunnel conductance of Watson-Crick nucleoside-base pairs from telegraph noise. *Nanotechnology* **2009**, *20* (18), 185102/1-185102/7.

STM image

5'-thio-thymidine monolayer on Au (111) taken in trichlorobenzene (current 0.3 nA, bias 0.5V).

