

Supplemental Table S3. AFM analysis of dsRNA and dsDNA in water.

Theoretical length (bp)	AFM measured length in nm			Length in bp determined using theoretical rise per bp and AFM measured lengths			
	Number of molecules traced	Mean	Standard deviation	Using crystal structure values of 0.28 for A-RNA and 0.34 for B-DNA		Using AFM in air values of 0.29 for A-RNA and 0.32 for B-DNA [1]	
				Mean	Standard deviation	Mean	Standard deviation
521 bp <i>in vivo</i> dsRNA (HPLC)	510	146.5	5.1	523	18	505	18
504 bp <i>in vitro</i> dsRNA (HPLC)	412	143.2	4.2	512	15	494	14
228 bp DNA	179	74.8	5.8	220	17	234	18

[1] Herrero-Galán, E., Fuentes-Perez, M.E., Carrasco, C., Valpuesta, J.M., Carrascosa, J.L., Moreno-Herrero, F. and Arias-Gonzalez, J.R. (2012) Mechanical identities of RNA and DNA double helices unveiled at the single-molecule level. *Journal of the American Chemical Society*, **135**, 122-131.