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## [Supporting Information]

Visualization of molecular binding sites at the nanoscale in the lift-up mode by amplitudemodulation atomic force microscopy

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Figure S1 Superimposed image of topography and phase image obtained in the LUS mode at  $\Delta h = 8$  nm.



Figure S2 Force-distance curves (A) without and (B) with a molecular binding event. Phase-distance curves (C) without and (D) with a molecular binding event.



Figure S3 (a) Topographic image of BSA immobilized on the OEG-SAM scanned with a probe functionalized with anti BSA antibody (b) phase image taken in the lift-up scan mode (molecular recognition image) (c) Topographic image of the OEG-SAM scanned with a probe functionalized with anti BSA antibody (d) phase image taken in the lift-up scan mode.