ELECTRONIC SUPPLEMENTARY INFORMATION

Spacer Length, Label Moiety Interchange and Probe Pair Orientation in a Homogeneous Solid-Phase Hybridization Assay Utilizing Lanthanide Chelate Complementation

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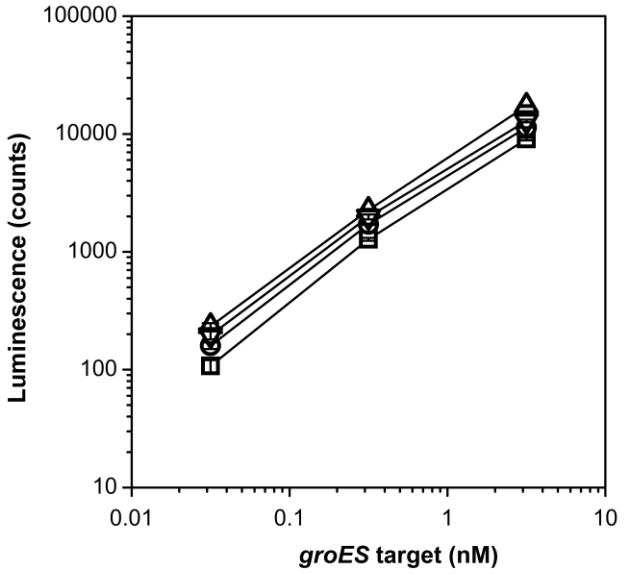
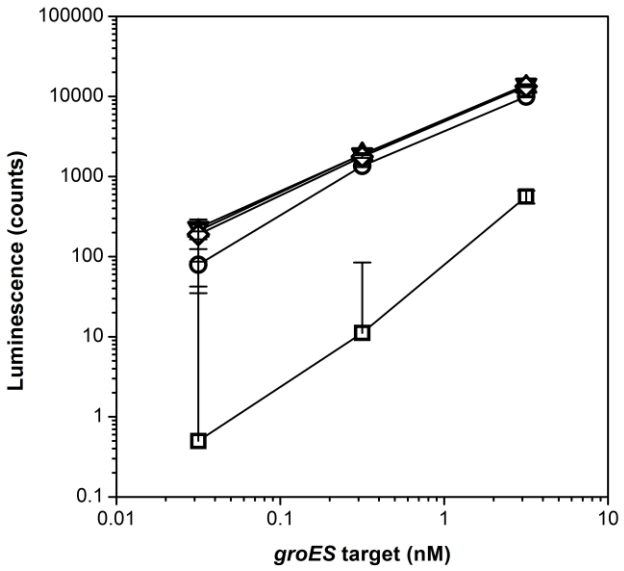
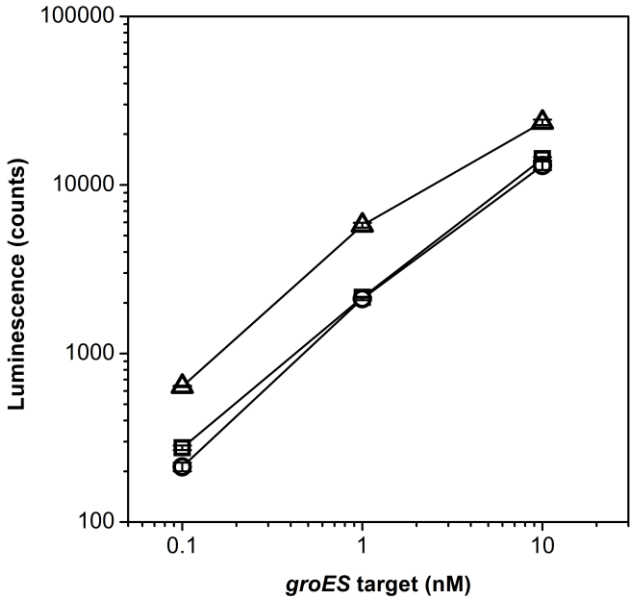


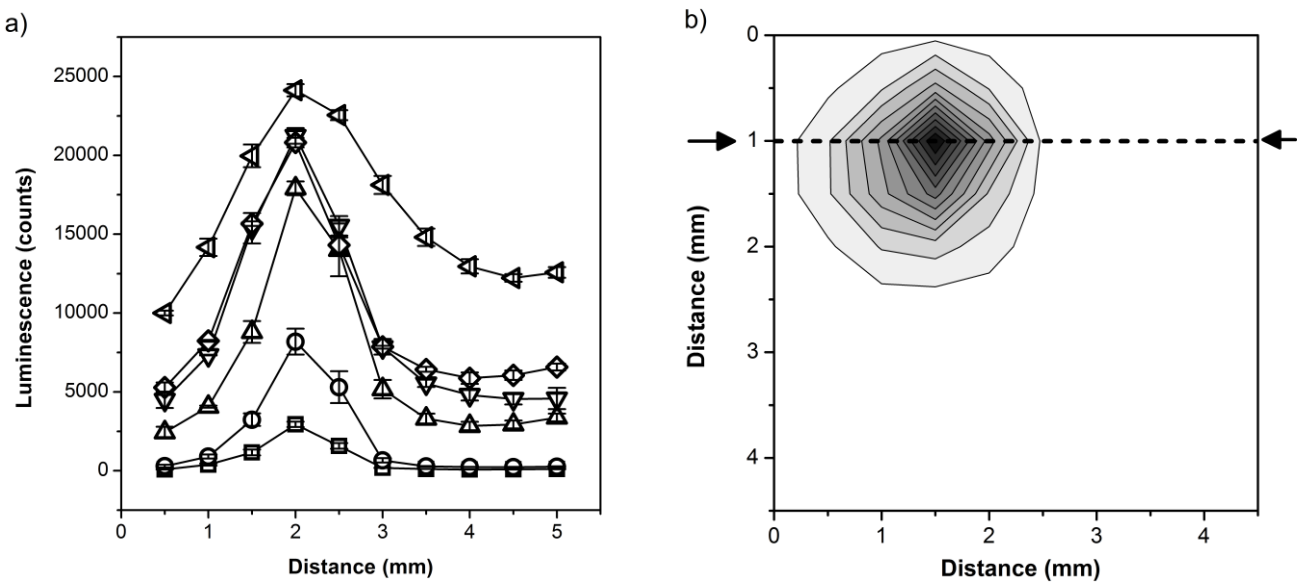
ESI 1 The effect of the first incubation in hybridization on luminescence signals. Four alternatives for the first incubation were tested; no preincubation (squares), 20 min incubation at RT (circles), 50 °C (up triangles), and 60 °C (down triangles). Error bars indicate the standard deviation (n = 3).



ESI 2 The effect of NaCl concentration in hybridization buffer. The luminescence signals with five hybridization buffer NaCl concentrations; 0 mM (squares), 150 mM (circles), 300 mM (up triangles), 600 mM (down triangles), 900 mM (diamonds). Error bars indicate the standard deviation (n = 3).



ESI 3 The effect of probe pair orientation and label moiety interchange on luminescence. Europium ion carrier chelate was immobilized at the 3´ end (squares) and antenna ligand probe was immobilized either at the 3´ end (circles) or 5´ end (triangles). Error bars indicate the standard deviation (n = 3).



ESI 4 Luminescence signal line profiles (a) across the peak top with different spotting concentrations (no background subtracted). (b) Line profile luminescence signals were from the horizontal measurement points in a 10 × 10 raster going across the peak top shown as a dashed line and marked with arrows in the schematic luminescence image. The spotting concentrations were 1 μM (squares), 4 μM (circles), 16 μM (up triangles), 24 μM (down triangles), 32 μM (diamonds), and 64 μM (left triangles). The target was 3.16 nM. Error bars indicate the standard deviation (n = 3).