Testing 3 UCL compounds by SPR against nsp13

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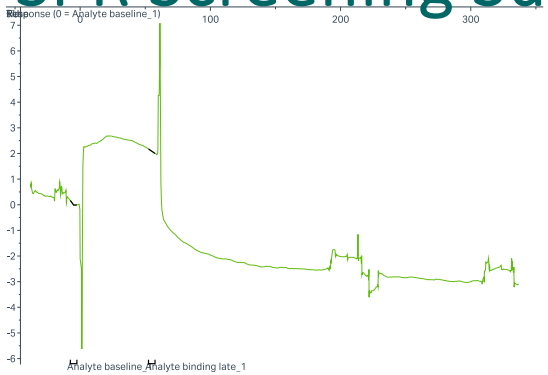
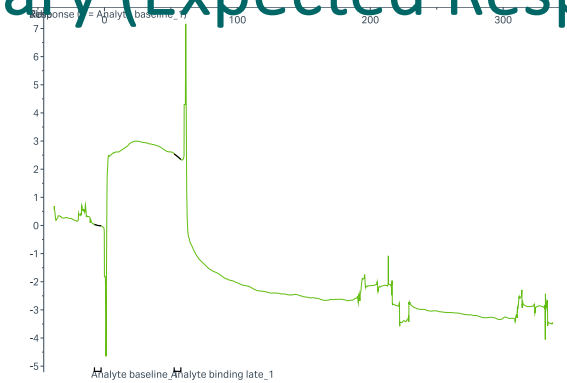
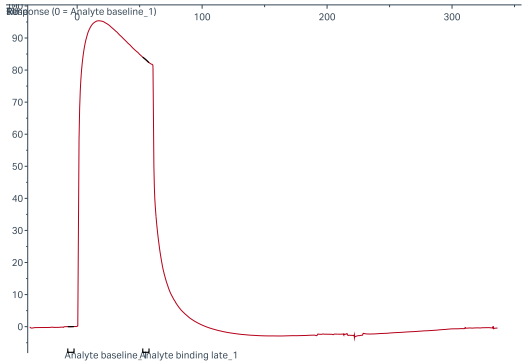
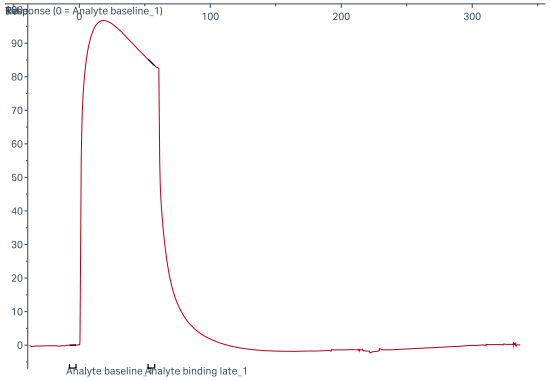
SPR Screening Summary (Expected Response units:30-33 RUs)



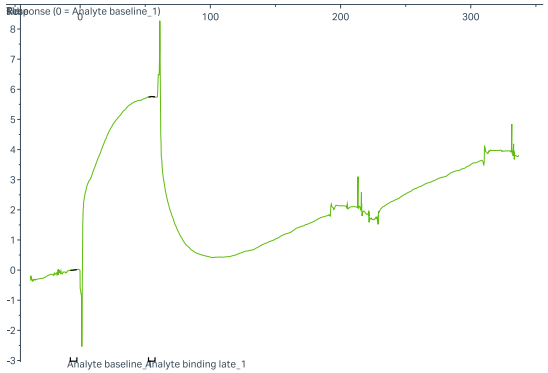


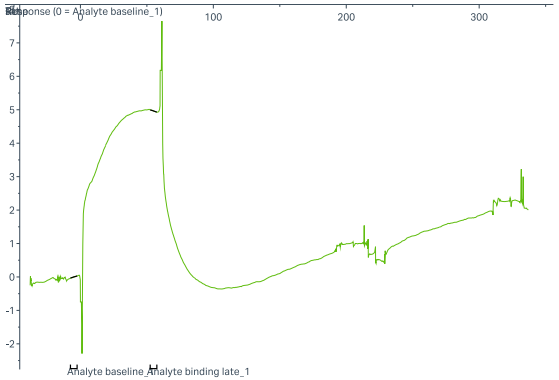
RA-0003626-01
Low RU, no Binding





RA-0003627-01
High RU, non specific binding





RA-0003628-01
Low RU, no Binding

DLS Summary

- Buffer with 2% DMSO control gave an average intensity of 1030 kCounts/s.
- In Blue: conditions that showed relatively higher intensity levels, indicative of compound aggregation

Compound Name	ChemiReg ID	Normalized Intensity (kCnt/s)		
		50uM	100uM	200uM
Control	2% DMSO	1030	1028	1032
RA-0003626-01	HL003722a	2086	2008	3150
RA-0003627-01	HL003723a	2118	9337	31867
RA-0003628-01	HL003724a	NA	46137	256379

SPR Conditions:

Biotinylated Nsp13_SARS2 (nsp13_SARS2:MVC019-D12:C245528) was immobilized on the active flow cells (flow cell 2) of 8 channels of the SA sensor chip in buffer (10mM Hepes pH7.4, 5mM MgCl2, 150mM NaCl, 0.03% Tween20), yielding around 5000 RU. Using the same buffer with 2% DMSO and muti cycle kinetics with 60s contact time and a dissociation time of 180s at a flow rate of 40 µL/min. Compounds were tested at 50 µM in duplicates.

Dynamic Light Scattering (DLS) assay Conditions:

Solubility of were tested by DLS (DynaPro DLS Plate Reader III) from 50µM to 200µM, in filtered 50 mM HEPES, pH 7.5, 5% Glycerol, 5 mM magnesium acetate, 5 mM DTT, 2% DMSO, at 25^{o}C, in duplicate.

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Molecular Biophysics
SGC Toronto

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Protein purification performed by: Elisa Gibson
Compound Management: Albina Bolotkova

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