

## Supplementary data

### Primer sequences sequences

#### LLO-SIINFEKL

FWD: 5'- TCT ATT ATT AAC TTT GAG aaa tta tca act -3'

REV: 5'- CTC AAA GTT AAT AAT AGA caa ata aac ttg -3'

#### rLLO-SIINFEKL

FWD: 5'- TCTATTATTAACCTTTGAGAAATTATCAACTAATTCCCATAGTACTAAAGTAAAAG – 3'

REV: 5'- CTCAAAGTTAATAATAGACGCCACACTTGAGATATATGCA – 3'

#### rLLO-SPLIT3A (IINSVAFE)

FWD: 5'- TCTATTATTAACAGTGTGGCGTTTGAGAAATTATCAACTAATTCCCATAGTACTAAAG – 3'

REV: 5'- CTCAAACGCCCACTGTTAATAATAGAGATATATGCAGGAGGATTTTCTG – 3'

#### rLLO-SPLIT3L (IINSVLFE)

FWD: 5'- TCTATTATTAACAGTGTGCTGTTTGAGAAATTATCAACTAATTCCCATAGTACTAAAG – 3'

REV: 5'- CTCAAACAGCACACTGTTAATAATAGAGATATATGCAGGAGGATTTTCTG – 3'

#### rLLO-SPLIT2V (IINSVFE)

FWD: 5'- TCTATTATTAACAGTGTGTTTGAGAAATTATCAACTAATTCCCATAGTACTAAAG – 3'

REV: 5'- CTCAAACACTGTTAATAATAGAGATATATGCAGGAGGATTTTCTG – 3'

#### rLLO-SPLIT2L (IINSLFE)

FWD: 5'- TCTATTATTAACAGTCTGTTTGAGAAATTATCAACTAATTCCCATAGTACTAAAG – 3'

REV: 5'- CTCAAACAGACTGTTAATAATAGAGATATATGCAGGAGGATTTTCTG – 3'

#### rLLO-SPLIT1V (IINVFE)

FWD: 5'- TCTATTATTAACGTGTTTGAGAAATTATCAACTAATTCCCATAGTACTAAAG – 3'

REV: 5'- CTCAAACACGTTAATAATAGAGATATATGCAGGAGGATTTTCTG – 3'

#### rLLO-SPLIT1L IINLFE

FWD: 5'- TCTATTATTAACCTGTTTGAGAAATTATCAACTAATTCCCATAGTACTAAAG – 3'

REV: 5'- CTCAAACAGGTTAATAATAGAGATATATGCAGGAGGATTTTCTG – 3'

### Plasmid sequences

#### LLO in pDONR221 (base plasmid for mutagenesis)

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## Sequencing results after insertion into plasmid

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### **rLLO-SPLIT3L**

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#### *Reverse sequencing*

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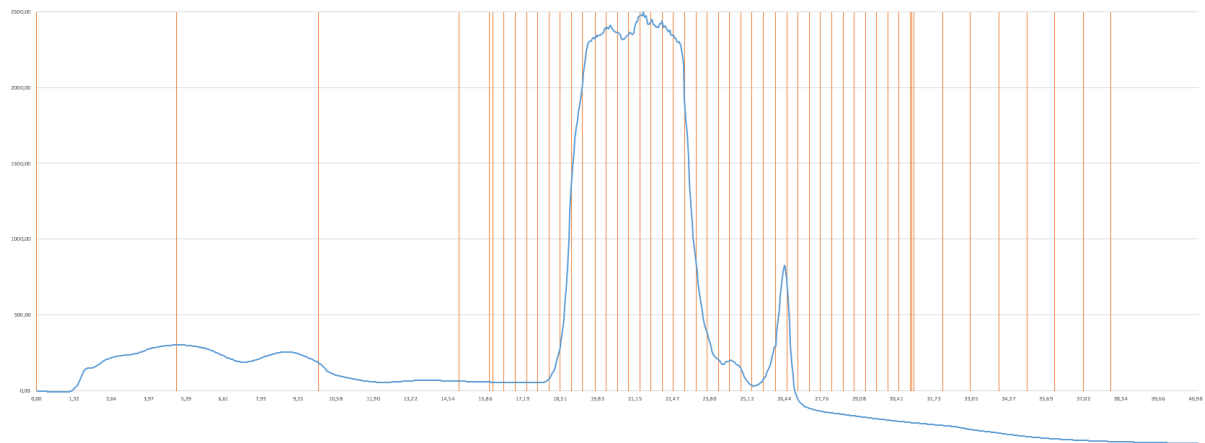
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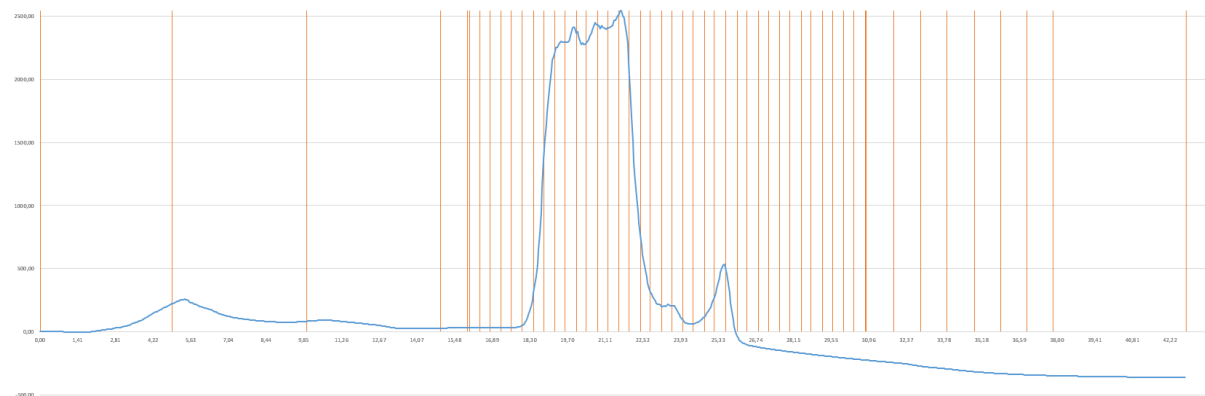
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## MonoQ Chromatograms

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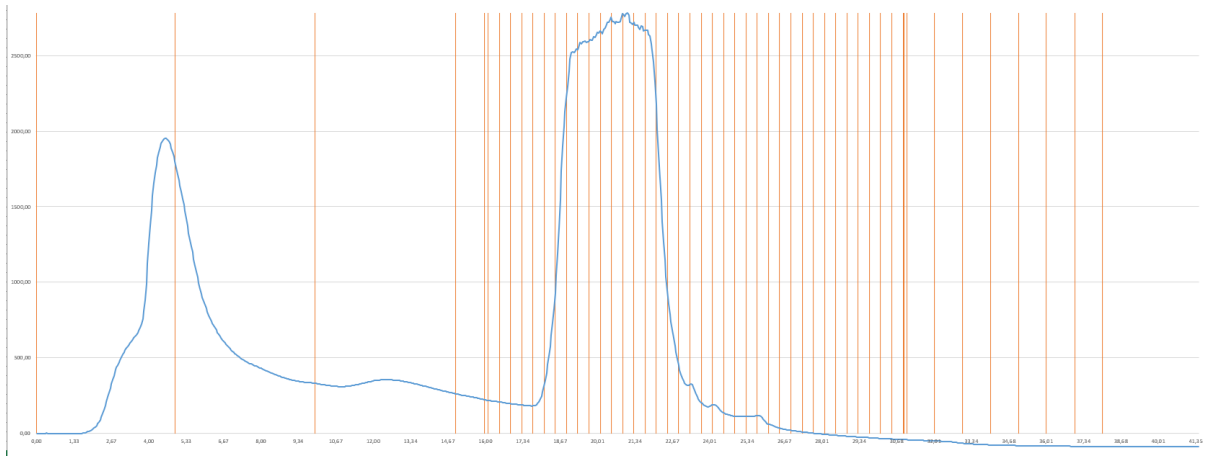


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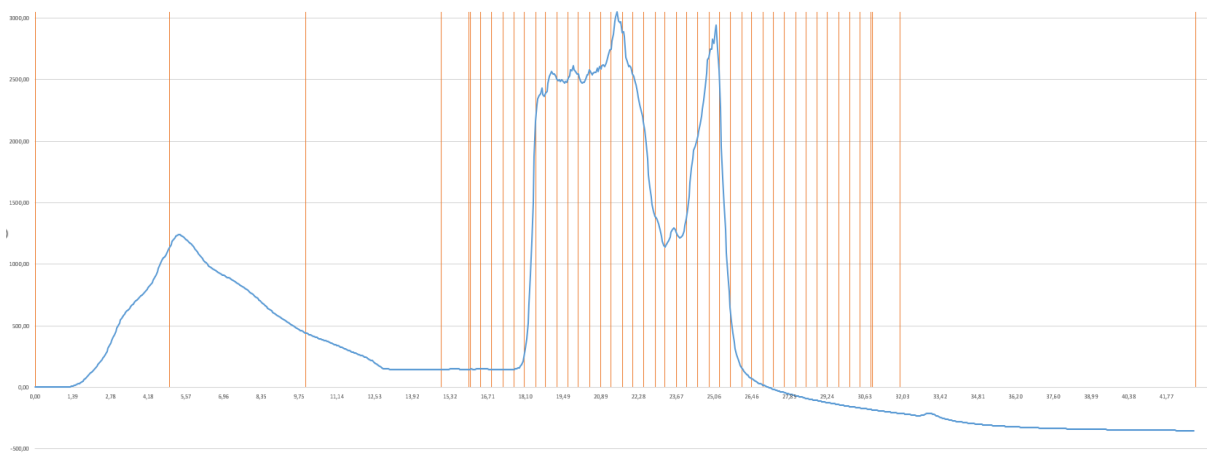




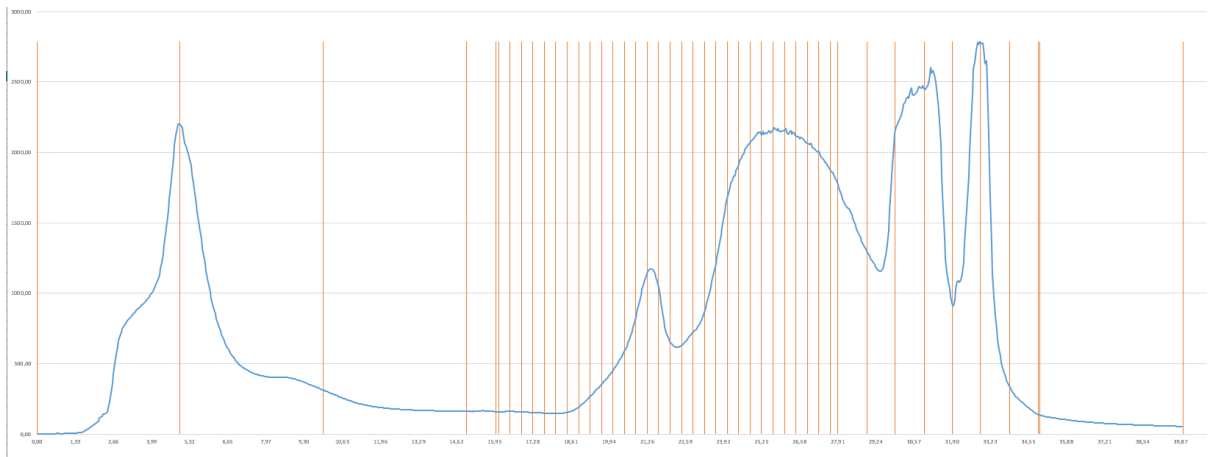
### eGFP Pellet Lena



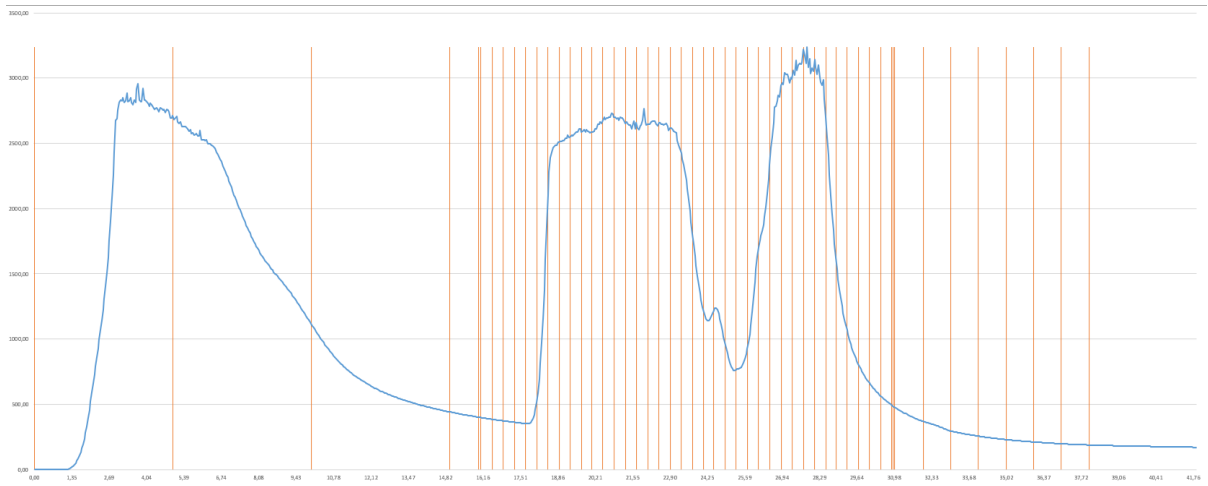
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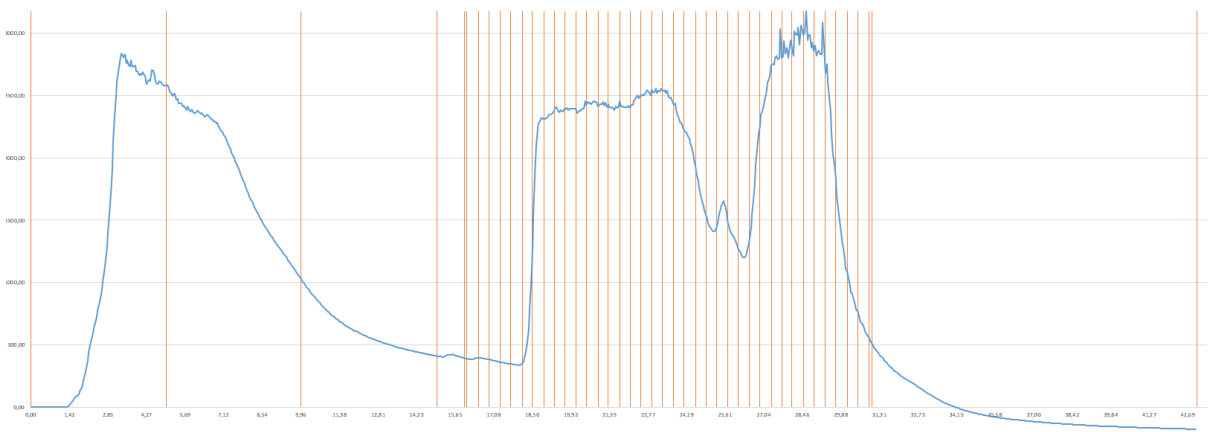
### rLLO-SPLIT3A



## rLLO-SPLIT3L

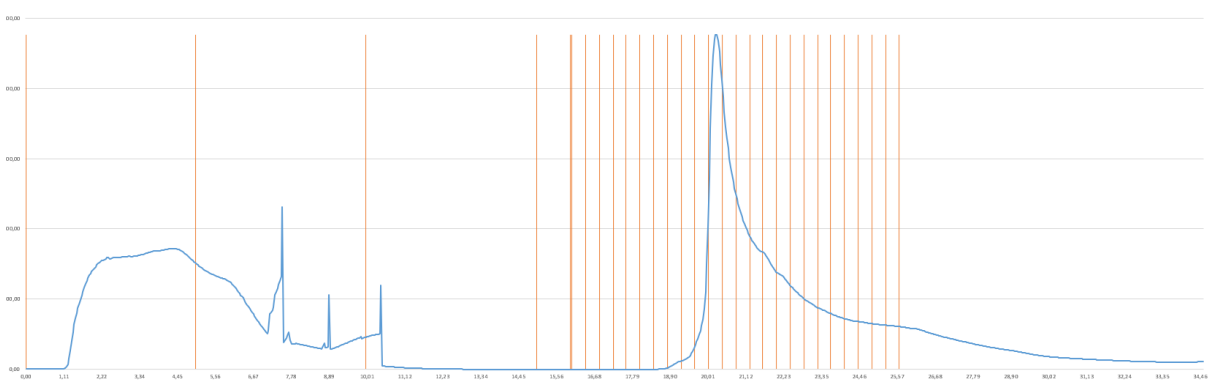


## LLO WT

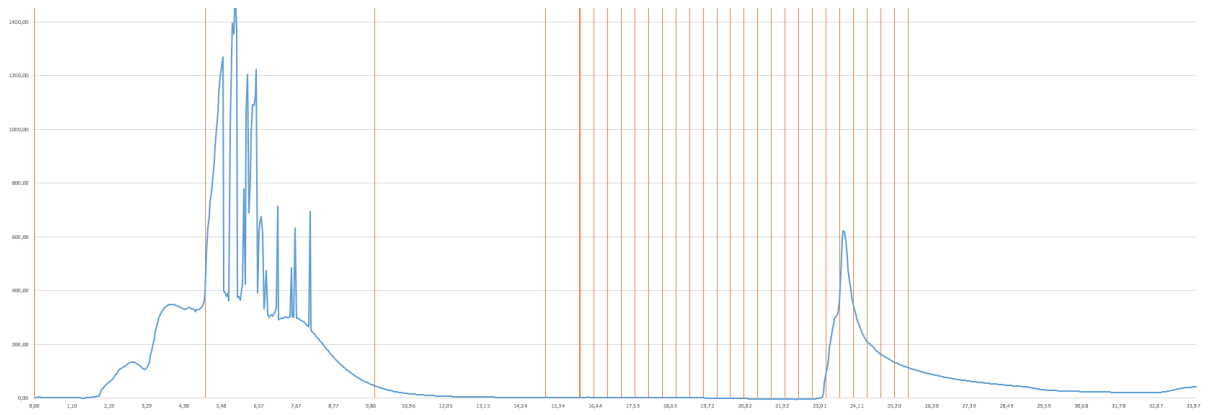


## MonoS Chromatograms

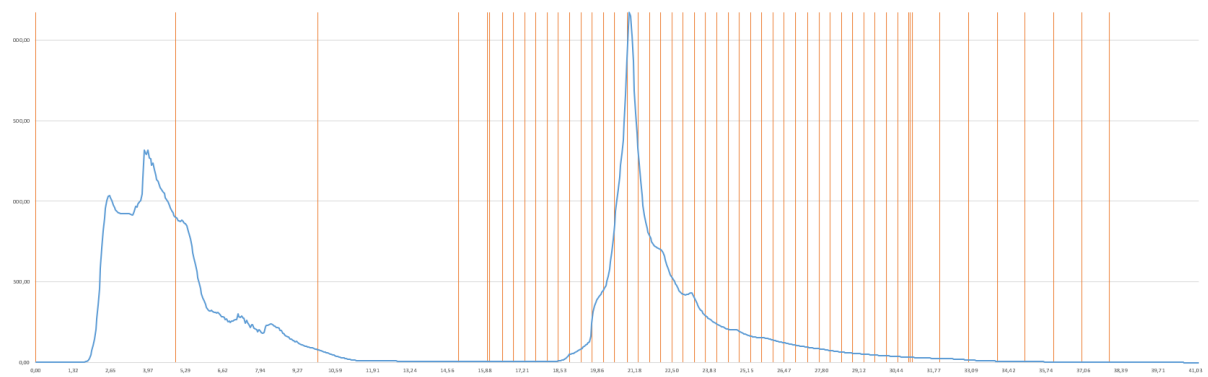
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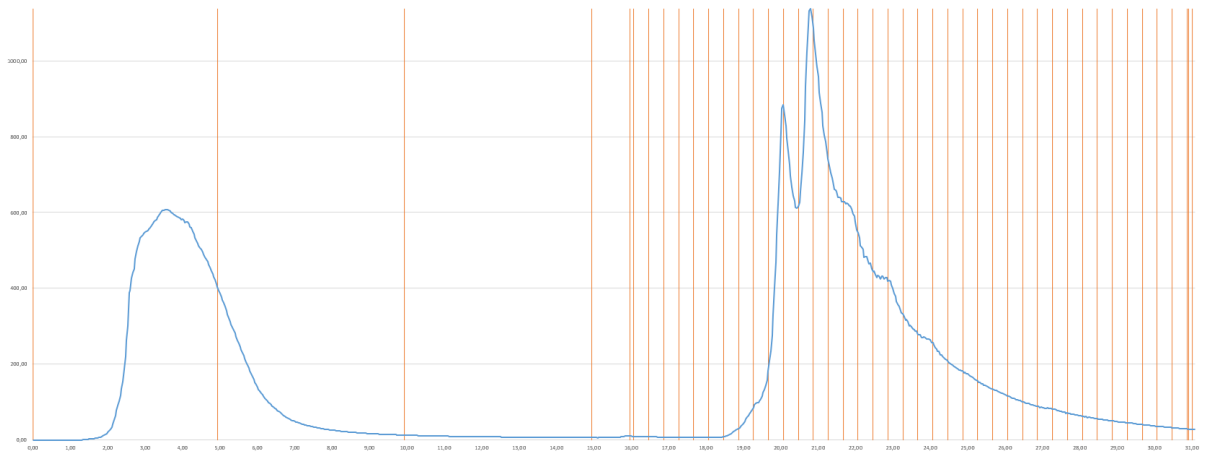
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### rLLO-SPLIT3L

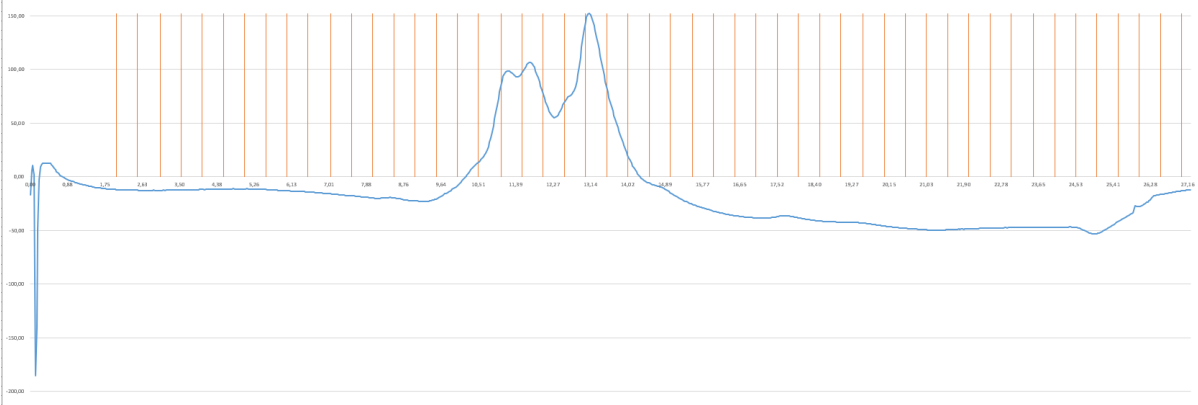


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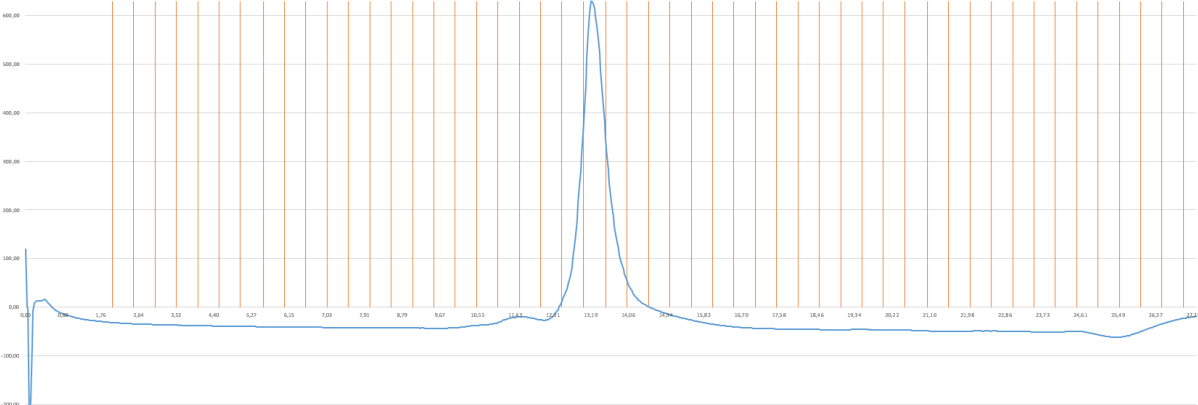


# Gel Filtration Chromatograms

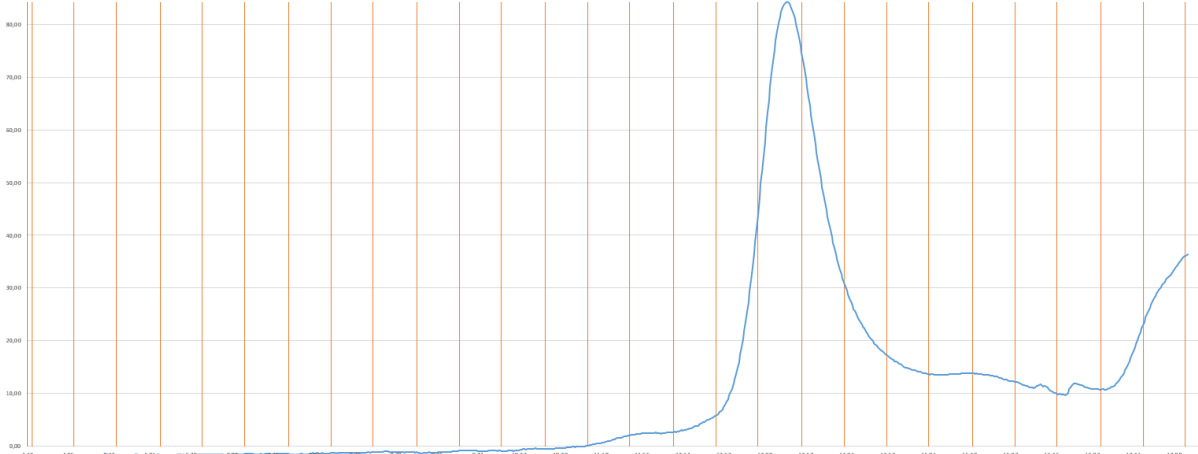
## LLO WT



## rLLO-SIINFEKL



## rLLO-SPLIT3A



rLLO-SPLIT3L

