File Name: Supplementary Data 1

Description: ProTIGY v1.1.7. exports of batch corrected exports of normalized single cell data including the experimental design and sample annotations. A moderated two-sided, two sample

t-test was performed without adjustments for multiple comparisons.

File Name: Supplementary Data 2

Description: Gene Set Enrichment Analysis (GSEA) on the signed log₁₀ p-values from the two sided, two-sample t-test using ssGSEA 2.0 (https://github.com/broadinstitute/ssGSEA2.0) on

the Reactome gene sets (https://www.gsea-

msigdb.org/gsea/msigdb/human/genesets.jsp?collection=CP:REACTOME)

File Name: Supplementary Data 3

Description: Detailed diaPASEF isolation window placement

File Name: Supplementary Data 4

Description: Detailed isolation parameters for HEK293 and THP-1 cells acquired during

cellenONE based cell isolation.