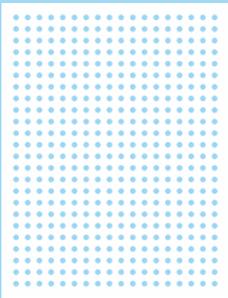


Certificate of Analysis



Olink[®] Explore

PROJECT NAME	Demo
ISSUE DATE	2021-03-30
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1. Project information

No. of samples	No. of plates	Normalization method
212	4	Intensity normalization

1.1 Sample type

EDTA Plasma

1.2 Project specific comments

N/A

2. Quality control

Three internal controls are added to each sample, the Incubation control, the Extension Control and the Amplification control. The Extension Control is used for the generation of the NPX values. The Incubation Control and the Amplification Control are used to monitor the quality of assay performance, as well as the quality of individual samples.

Three external controls are included in each run, the Plate Control (healthy pooled plasma), Sample Control (healthy pooled plasma) and Negative Control. The Plate Control is used for data normalization, the Sample Control is used to assess potential variation between runs and plates, and the Negative Control is used to calculate Limit of Detection for each assay and to assess potential contamination of assays.

The following parameters are evaluated in the Quality Control (QC):

- 1 The average matched counts¹ for each sample. To pass QC, there should be at least 500 counts, otherwise the sample receives a QC warning status.
- 2 The deviation from the median value of the Incubation- and Amplification Controls for each individual sample. To pass QC, the deviation should not exceed +/-0.3 NPX for either of the internal controls, otherwise the sample will receive a QC warning status.
- 3 The deviation of the median value of the Negative Controls from a predefined value set for each assay. To pass QC, the deviation of the median of the Negative Controls must be ≤ 5 standard deviations from the set predefined value, otherwise the assay will receive a warning status.

¹The number of reads for each specific combination of sample and assay

All samples included in the project are presented in the data output file. Samples that do not pass the QC are indicated with "WARN" in columns named "QC_warning". Data points from samples that do not pass QC should be treated with caution. Samples that are failed are indicated with FAIL in the column named "QC_warning". Data points from failed samples are not included in the results file, the cells in the NPX column are empty. Assays that do not pass the QC are indicated with WARN in the column named "Assay_warning". Data points from assays that do not pass QC should be treated with caution.

2.1 QC summary

Olink Panel	No. of samples that passed QC / Total no. of samples	Passed samples (%)
Explore 384 Cardiometabolic	174 / 212	82
Explore 384 Inflammation	174 / 212	82
Explore 384 Neurology	178 / 212	84
Explore 384 Oncology	185 / 212	87

2.2 Intra- and Inter-assay Coefficient of Variance (%CV)

Intra- and inter-CVs are based on the Sample Controls (pooled plasma samples) included on each sample plate. Calculations are made for each assay using NPX-values. Average % CV for all assays on a panel is presented in section 2.2.1. The number of assays with CVs within defined intervals are presented in sections 2.2.2 and 2.2.3.

2.2.1 Average %CV

Olink Panel	Intra-assay %CV	Inter-assay %CV
Explore 384 Cardiometabolic	10	16
Explore 384 Inflammation	11	17
Explore 384 Neurology	12	18
Explore 384 Oncology	12	18

2.2.2 Intra-assay %CV distribution

Olink Panel	<5%	≥5-<10%	≥10-<15%	≥15%	N/A*
Explore 384 Cardiometabolic	125	102	45	96	1
Explore 384 Inflammation	82	122	80	83	1
Explore 384 Neurology	59	112	80	115	1
Explore 384 Oncology	75	106	66	118	3

*Assays where CV is not possible to calculate

2.2.3 Inter-assay %CV distribution

Olink Panel	<10%	≥10-<20%	≥20-<30%	≥30%	N/A*
Explore 384 Cardiometabolic	121	157	63	27	1
Explore 384 Inflammation	82	186	65	34	1
Explore 384 Neurology	75	181	70	40	1
Explore 384 Oncology	74	175	85	31	3

*Assays where CV is not possible to calculate

3. Protein detection results

3.1 Number of proteins detected in >50% of the samples

Olink Panel	No. of detected proteins / Total no. of proteins	Detected proteins (%)	Expected detectability in EDTA plasma* (%)
Explore 384 Cardiometabolic	368 / 369	100	N/A
Explore 384 Inflammation	365 / 368	99	N/A
Explore 384 Neurology	365 / 367	99	N/A
Explore 384 Oncology	362 / 368	98	N/A

*The expected detectability is based on EDTA plasma from healthy donors. These values are intended as guidelines only and protein levels are expected to vary depending on different pathological conditions, sample matrices, or sample preparation methods.

3.2 Data output

Data is presented as NPX (Normalized Protein eXpression) values. NPX is Olink's relative protein quantification unit on log₂ scale. NPX values from Olink® Explore 384 and Olink® Explore 1536 (a combination of 4 separate Olink® Explore 384 panels) are calculated from the number of matched counts, using NGS (Next Generation Sequencing) as readout. The NPX values are presented in a separate results file delivered in the MyData cloud. Data values for measurements below limit of detection (LOD) are reported for all samples.