halo labs

AURA SYSTEM SPECIFICATIONS SHEET

Aura

AGGREGATE AND PARTICLE COUNTING, SIZING, AND ID

Protein vs Non-Protein ID
5 µL – 10 mL Sample Volume
96 Sample Automation
Custom Fluorescence Assays

About Aura

Aura™ is the particle and aggregate detection system that delivers information that truly matters. It combines Backgrounded Membrane Imaging (BMI), which images 100% of your sample to give you count, size, and morphological information, with up to 2 channels of Fluorescence Membrane Microscopy (FMM). Definitively identify if particles are protein or not with the first FMM channel and determine if your sample contains lipids, hydrophobic entities, or other aggregates of your choice with the second.

Product Specifications

Technology	Backgrounded Membrane Imaging (BMI) and Fluorescence Membrane Microscopy (FMM)
Imaging area	24.6 mm^2
Brightfield illumination (BF)	LED 455 nm
Side scatter illumination (SIMI)	LED 465 nm
Fluorescence illumination (FL)	LED
FL channel 1 (protein/non-protein)	Ex: 440/40 nm Em: 500/40 nm (Thioflavin T)
FL channel 2 (polysorbate)	Ex: 482/35 nm Em: 524/24 nm
Other available options for FL channel 2	Ex: 376/30 nm Em: 440/40 nm Ex: 605/50 nm Em: 670/50 nm Ex: 540/50 nm Em: 600/37 nm Custom excitation and emission
Sampling efficiency	100%
Minimum sample volume	5 µL (assay dependent)
Resolution	1.0 pixel/µm
Particle size range (detection and quantitation)	>1 µm
Protein/non-protein dye (recommended)	Thioflavin T (5 mM in H_20)
Maximum particle concentration (1.6 µm particle size)	>3,000,000 particles/mL
Rotated hIgG aggregates ThT staining efficiency	>95% for ≥5 µm ECD
Brightfield read time (BMI)	1 minute/sample
Fluorescence read time (FMM)	30 seconds/sample
Sample format	96-well filter membrane plate
Membrane type 1 (Brightfield)	White – Polycarbonate track etched 0.4 µm or 0.8 µm pores
Membrane type 2 (Fluorescence)	Black – Polycarbonate track etched 0.4 µm
Robotic compatibility	Yes
Software	Particle VUE 3.x all-in-one software suite (image capture and analysis)
Operating system	Windows 10
Power	Universal input (90 – 265 Vac)
Instrument dimensions	13.5 in x 18 in x 13 in
Instrument weight	56 lbs

Rev D