sFIDA technology

ultrasensitive quantitation and sizing of aggregates for development and QC of biologicals
about us

attyloid GmbH was founded in 2018 and is located in Düsseldorf, Germany. Building on a strong scientific expertise in protein misfolding and aggregation, we focus our business model on aggregate quantitation for development and QC of biologicals. Our mission is to revolutionize aggregate analytics for safer biologicals at higher yields.

sFIDA technology

sFIDA is a platform technology for quantitation and sizing of single protein aggregates. sFIDA combines the selectivity of an immunological assay with the sensitivity of high-resolution fluorescence microscopy.

It features single particle sensitivity, absolute specificity for aggregates and a 4 log dynamic range of size and concentration. The technology can be applied to oligomer based diagnostics of Alzheimer’s and Parkinson’s disease as well as counting of single viral particles. Furthermore, sFIDA is perfectly suited for development and QC of biologicals.

Raw data: Fluorescence images from the surface from which particle numbers and sizes are determined.

aggregate analysis in biologicals

According to a recent FDA guideline, subvisible aggregates ranging from 0.1-10 μm are of special concern regarding immunogenicity of biologicals. The FDA further emphasizes the need for quantitative methods covering this size range. sFIDA fills this gap by quantitating aggregates from 10 nm to 50 μm.

unique features

Huge dynamic range

4 log sizing and quantitation.

“One fits all” method for aggregate analysis.

Ultrasensitive quantitation

Exact particle quantitation down to subfemtomolar concentrations for earliest detection of aggregate formation.

Sizing

From few nanometers up to several microns - bridging the gap in subvisible particle detection.

Fast

Only <1 min per assay point. Minimum of hands-on-time saves labs resources.

Minimal sample requirement < 1 μl

Saves precious material.

Specificity

It is only the analyte. No interference with other components, such as stabilizers and buffers. Simultaneous analysis of other contaminants, such as host cell proteins.

Scalable

Manual single measurements up to automated high throughput screening.

Safer biologicals at higher yield.
scientific publications


