

Nano Stick



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Nano Stick Case

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Interior



Nano Stick

Nano Stick-S



Nano Stick-D



Optical direction image

Magnetic plate



Magnetic plate



Horizontal

Pathlength: 0.5 mm



Vertical

Measurement Procedures-Nano Stick-S



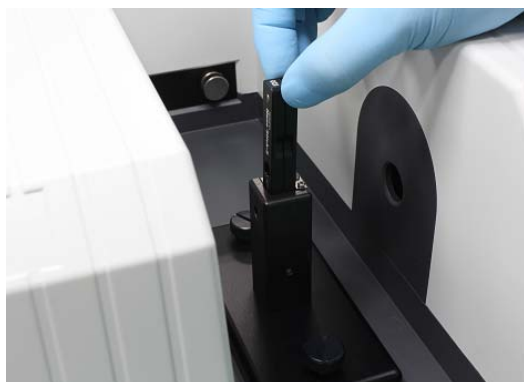
1. Pipette the Blank



2. Close the cover



3. Check the bubbles



4. Measure Blank



5. Clean the sampling area for next sampling



6. Pipette the Sample

7. Repeat the procedures 2~5.

Measurement Procedures-Nano Stick-D

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Pipette the blank and the sample in their respective port



Close the cover



Look for bubbles



Measure the Blank

Turn upside down



Measure the Sample



Clean both ports for next sampling

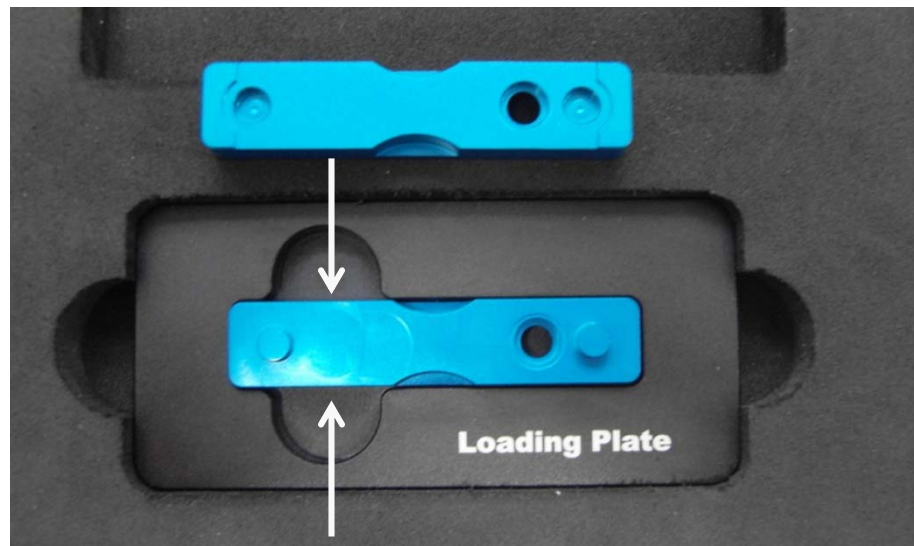
Loading Plate



Easy sample loading

-The lower plate of Nano Stick needs to be inserted into Loading Plate

-Easy clip-on with a grip



Bubble Checker

Bubble Check

-There are two grooves underneath Bubble checker for 8.5mm & 15mm height so it can be fit into each groove for checking the bubble.



The top of Bubble Viewer

The bottom of Bubble Viewer



8.5 mm
Nano Stick



15 mm Nano Stick



Nano Stick

Nano Stick is compatible with any kind of UV-Vis. Spectrophotometer

No need for special cell holder.

Easy to use

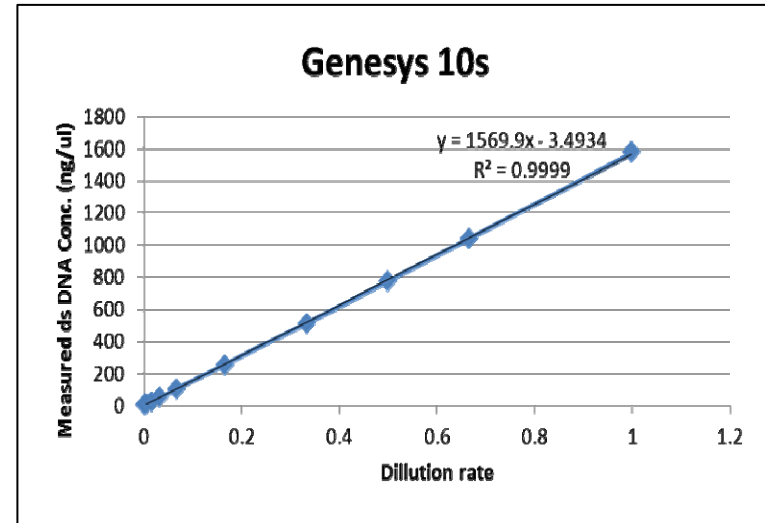
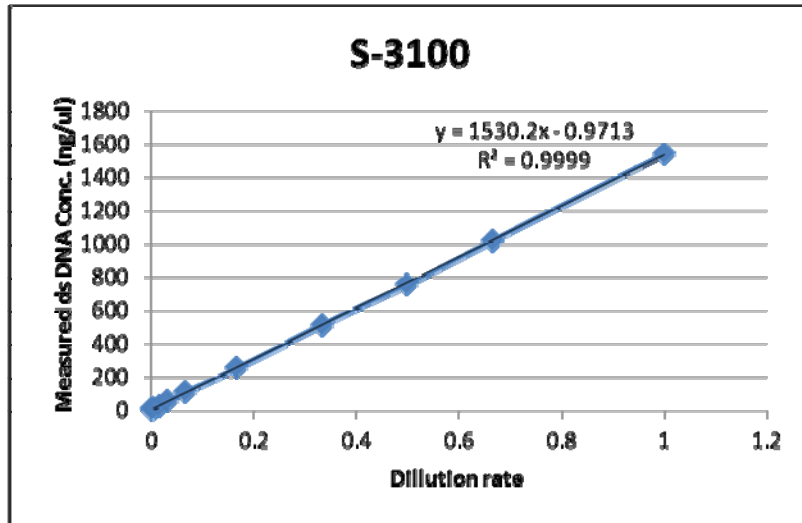
Easy to clean

First creative concept in Worldwide : Nano Stick-D!!



| Nano Stick | |
|---------------------------|--------------------------------|
| Pathlength | 0.5 mm |
| Size | 12.5 x 12.5 x 60 mm (WDH) |
| Z dimension (Beam height) | 15 mm or 8.5 mm |
| Min. sample volume | 2 ul |
| Color Options | Black, Red, Blue, Silver, Gold |

Linearity of Nano Stick (ds DNA)



| | S-3100 | 8453 | NEOSYS-2000 | Cary 300 | Nanophoto meter | Evolution 600 | Genesys 10S | Nanodrop |
|-------------|--------|--------|-------------|----------|-----------------|---------------|-------------|----------|
| NanoStick-S | 0.9999 | 0.9999 | 0.9999 | 0.9999 | 0.9999 | 0.9998 | 0.9999 | 0.9999 |

Sample volume: Nano Stick: 2.5 ul, Nanodrop: 1 ul

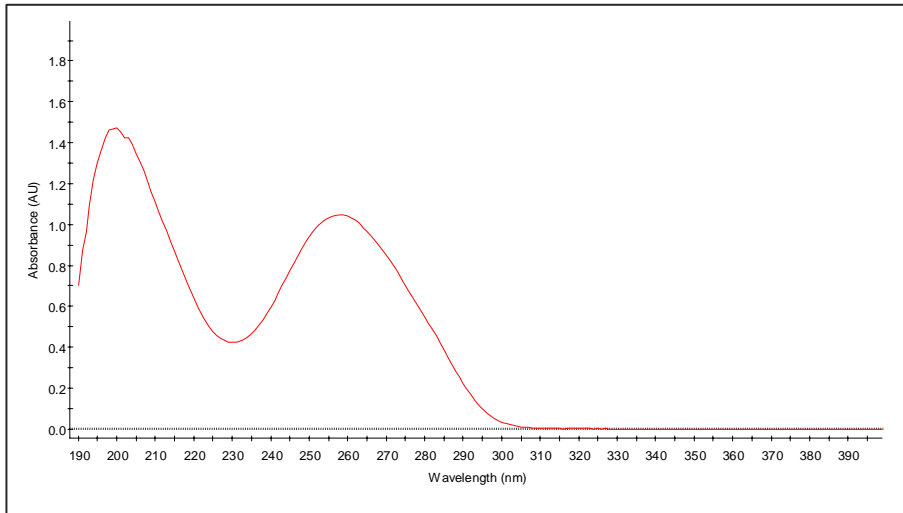
Pathlength: Nano Stick: 0.5 mm

Baseline Correction: 340 nm

Sample: 1500ng/ul of ds DNA was serially diluted - consecutive 5 times measurements & Avg. value was used for the calibration curve.

Concentration Range : 2.5 ~1500 ng/ul

Reproducibility Test Results of ds DNA



- DNA Concentration (ng/ul)

$$\text{ds DNA Conc. (ng/ul)} = A(260) \times \text{Cell factor} \times 50$$

- Cell factor

Nano Stick = 20, Biodrop = 80

| | S-3100 | 8453 | NEOSYS-2000 | Cary 300 | Nanophotometer | Evolution 600 | Genesys 10S | Nanodrop |
|------------|------------|------------|-------------|------------|----------------|---------------|-------------|------------|
| 1000 ng/ul | ±2.5 ng/ul | ±3.0 ng/ul | ±2.5 ng/ul | ±5.1 ng/ul | ±2.6 ng/ul | ±2.0 ng/ul | ±1.1ng/ul | ±5.4 ng/ul |
| 100 ng/ul | ±1.1 ng/ul | ±1.4 ng/ul | ±1.0 ng/ul | ±1.4 ng/ul | ±0.8 ng/ul | ±1.3 ng/ul | ±0.9ng/ul | ±0.4 ng/ul |

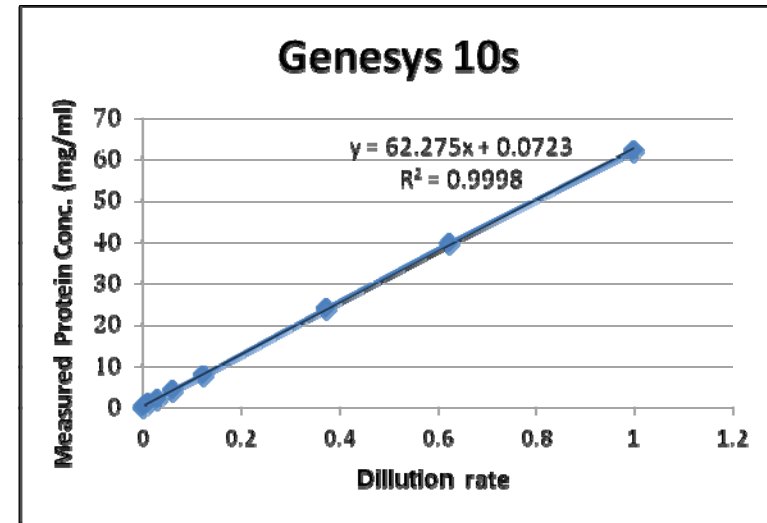
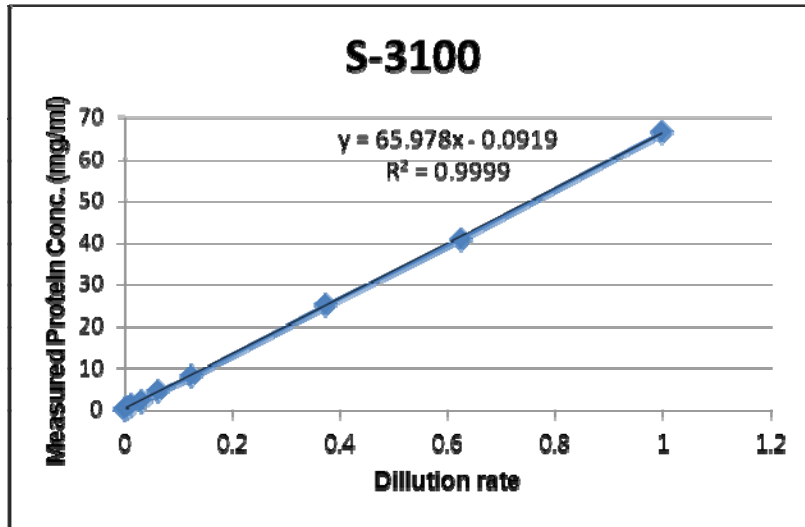
Sample volume: Nano Stick: 2.5 ul, Nanodrop: 1 ul

Pathlength: Nano Stick: 0.5 mm

Baseline Correction: 340 nm

Data : SD of 10 times Measurement

Linearity of Nano Stick (Protein)



| | S-3100 | 8453 | NEOSYS-2000 | Cary 300 | Nanophoto meter | Evolution 600 | Genesys 10S | Nanodrop |
|-------------|--------|--------|-------------|----------|-----------------|---------------|-------------|----------|
| NanoStick-S | 0.9999 | 0.9999 | 0.9971 | 0.9996 | 0.9997 | 0.9998 | 0.9998 | 0.9990 |

Sample volume: Nano Stick: 2.5 ul, Nanodrop: 1 ul

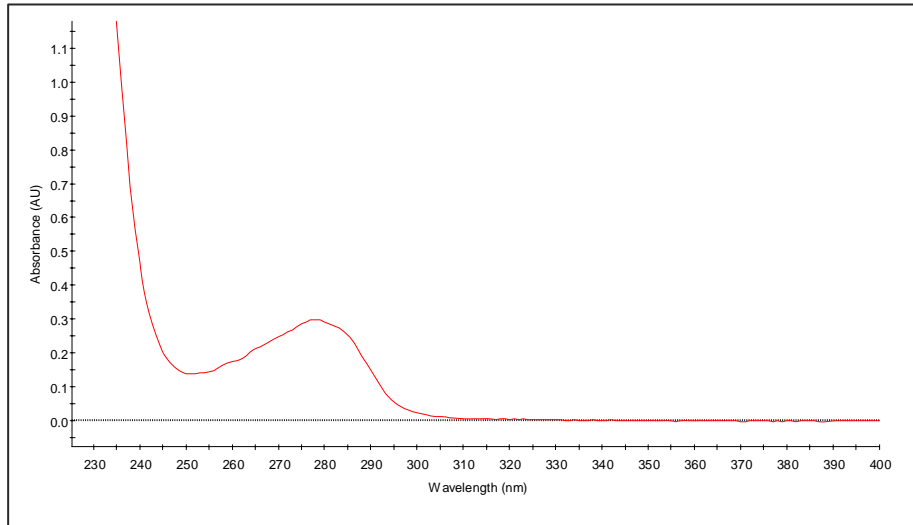
Pathlength: Nano Stick: 0.5 mm

Baseline Correction: 340 nm

Sample: 80mg/ml of protein was serially diluted - consecutive 5 times measurements & Avg. value was used for the calibration curve.

Concentration Range : 0.1 ~80 mg/ml

Reproducibility Test Results of Protein (BSA)



- Protein Concentration (mg/ml)

$$\text{Protein Conc. (mg/ml)} = A(280) \times \text{Cell factor} \times 1.492$$

- Cell factor

$$\text{Nano Stick} = 20$$

| | S-3100 | 8453 | NEOSYS-2000 | Cary 300 | Nanophoto meter | Evolution 600 | Genesys 10S | Nanodrop |
|----------|-------------|-------------|-------------|------------|-----------------|---------------|-------------|-------------|
| 10 mg/ml | ±0.1mg/ml | ±0.1 mg/ml | ±0.03 mg/ml | ±0.3 mg/ml | ±0.03 mg/ml | ±0.1 mg/ml | ±0.03mg/ml | ±0.05 mg/ml |
| 1 mg/ml | ±0.03 mg/ml | ±0.02 mg/ml | ±0.03 mg/ml | ±0.07mg/ml | ±0.01mg/ml | ±0.03 mg/ml | ±0.02mg/ml | ±0.01 mg/ml |

Sample volume: Nano Stick: 2.5 ul, Nanodrop: 1 ul

Pathlength: Nano Stick: 0.5 mm

Data: 5 times Measurement

Used : Direct UV method (A280).