

Multiply Your Experimental Possibilities

Agilent Cary 3500 UV-Vis Spectrophotometer



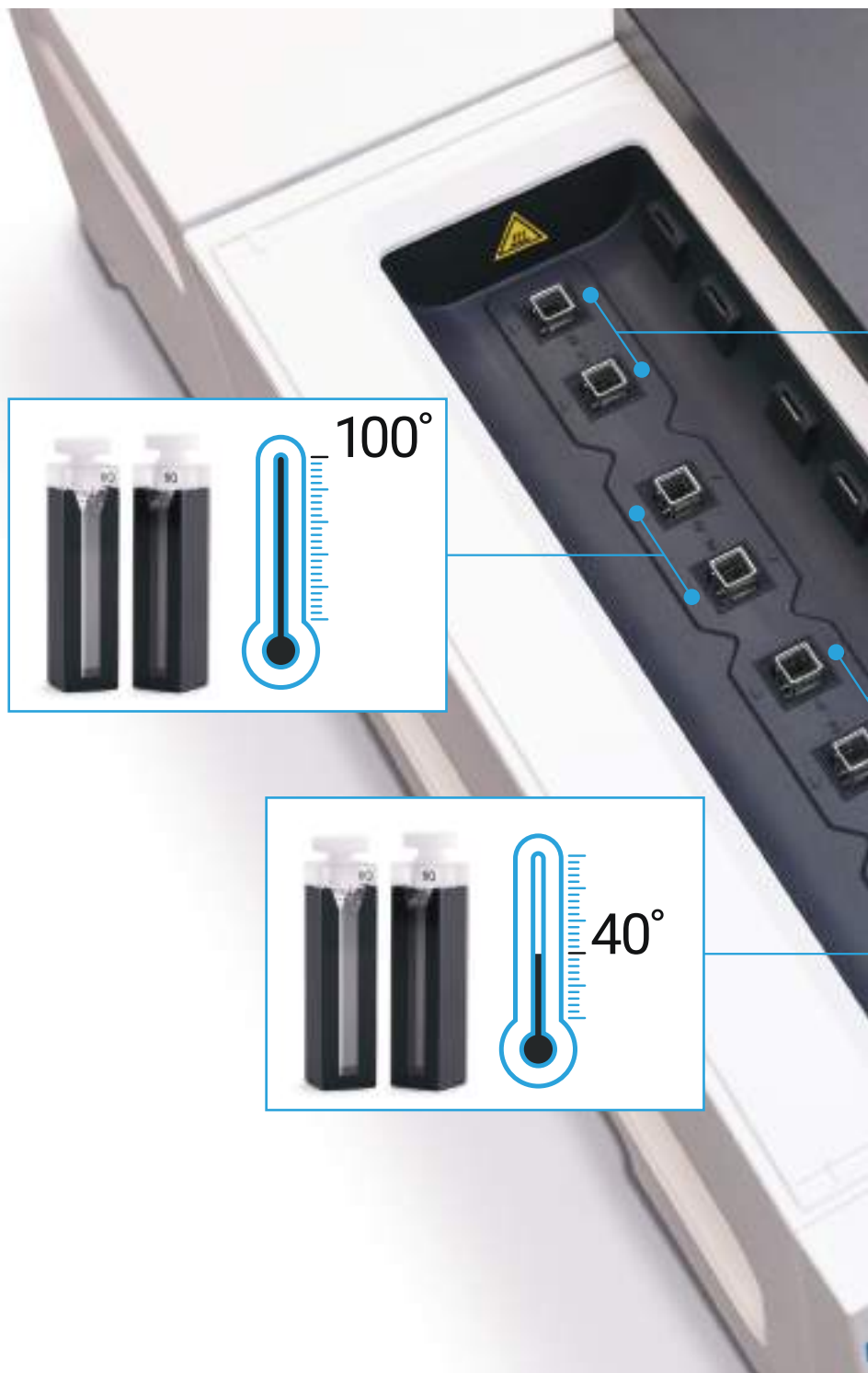
Multiply Your Experimental Impact

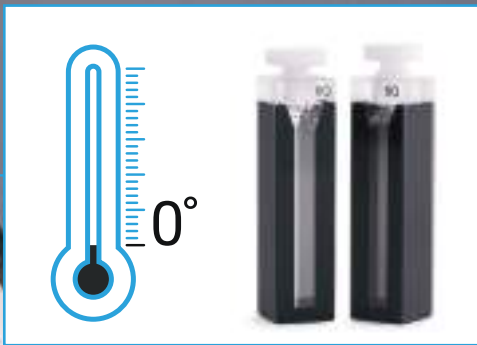
The innovative Agilent Cary 3500 UV-Vis will transform your laboratory.

Designed from the ground up, it will streamline your experimental design and amplify confidence in your results.

The Cary 3500 UV-Vis will change the way you:

- Monitor enzymatic reactions at temperature
- Calibrate and determine sample concentration
- Perform temperature ramping experiments
- Quantify nucleotides and proteins





Streamline experimental design

- Simultaneously scan a full wavelength range, on all eight channels, in less than a second.
- Do four different temperature experiments at the same time and dramatically reduce analysis time.
- Accurately and quickly control the temperature of your samples from 0 to 110 °C without water, noise, or messy cables.
- Get through more samples faster- reduce your thermal ramp time by increasing the ramp rate without sacrificing data quality.

Amplify confidence in your results

- Eliminate dilutions and reduce errors by reliably measuring highly absorbing samples.
- With no moving parts or alignment requirements you can be sure of reproducible, and accurate results every time (even with small volumes).
- Simultaneously measure standards, samples and controls, under exactly the same conditions.
- Never miss critical information with the unbelievably fast, 250 points per second, data collection rate.

Multiple cells, multiple temperatures. Simultaneously

Measure samples at four temperatures, simultaneously

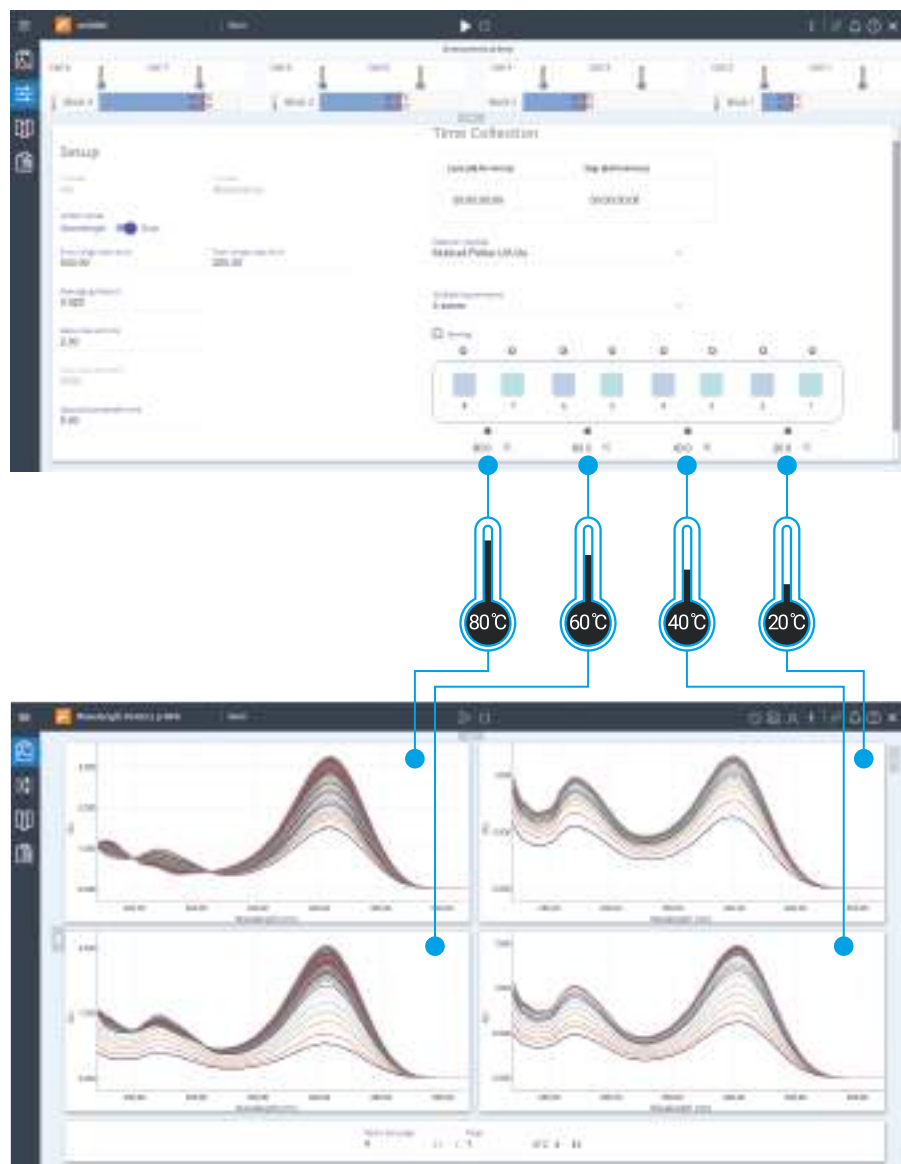
The Cary 3500 Multizone UV-Vis has no moving parts and allows up to four temperature zones to be configured. Each pair of cuvettes can be held at a different temperature—so you can do four experiments at once.

The module includes built-in, software-controlled stirring. Sample temperature can be accurately and reliably controlled by high-performance, Cary temperature probes that read the temperature immediately adjacent to where the sample is being measured.

Collect data once, interrogate in multiple ways

With the xenon lamp generating 250 data points per second and the wavelength drive moving at up to 2500 nm per second, you'll never miss vital data because your reaction is faster than your instrument's data collection rate. Stationary cell positions mean there are no data gaps, unlike conventional multicell holders which have to physically move between cells and can miss critical data.

The powerful Cary UV Workstation software allows you to interrogate multivariate data sets and make the most of your data.





Water-less temperature control up to 110 °C

Integrated, air-cooled, Peltier-driven temperature control does not require a space consuming water circulator. This means no messy plumbing, no flood risk, silent operation, and no maintenance.

The robust design has no moving parts and permanent optical alignment that requires no adjustment.

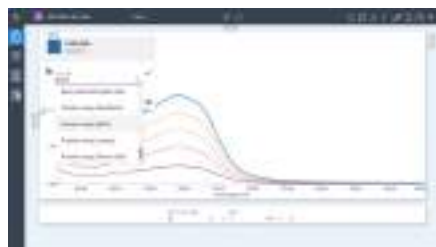
Fast and accurate temperature measurements between 0 to 110 °C. Experiments that had to be done at slow ramp rates can now be done at 30 °C per minute, and even offer improved accuracy and reproducibility.

Cary UV Workstation software delivers speed, data quality, and reliability



Set only the parameters that matter

Choose from time-based kinetics, concentration, wavelength scanning, or temperature-based measurements and only see parameters you need to set.



Over 50 built-in calculations

Analyze your data with one of more than 50 built-in calculations or create your own.



Video guidance for new or infrequent users

The built-in Help and Learning Center reduces training time and effort by providing easy to follow videos and information for all users.

Calibration standards and samples. Simultaneously

Create a standard curve and measure samples in less than 1 second

Place your standards in the eight-position multicell holder and fill the other positions with samples. All eight positions are measured simultaneously, under the same conditions. In the time that it normally takes to collect only one spectrum, the full calibration curve, and sample concentration data instantly appear.

The double out-of-plane Littrow monochromator and powerful xenon lamp of the Cary 3500 allows measurements of samples that absorb up to 99.999% of the light. This means faster results, with fewer dilutions and fewer errors.



Small volumes, massive impact

A highly-focused beam of less than 1.5 mm width delivers maximum accuracy

The extremely small and permanently focused beam of the Agilent Cary 3500 UV-Vis easily passes through small apertures.

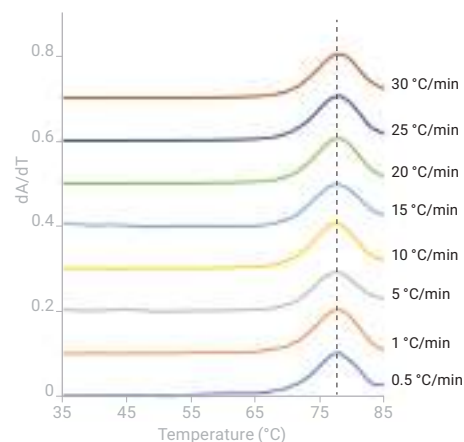
The stationary multicell holder requires no alignment and will provide repeatable measurements of up to eight microcuvettes every time, without operator adjustment.

Temperature ramping. Transformed

Confidence at any temperature ramp rate

These plots (right) show the melting temperature of siRNA is not impacted by the temperature ramp rate. Ramp your sample temperatures from 0.5 to 30 °C/min with the same level of confidence.

Ramp Rate (°C/min)	Sample 1 T_m (°C)	Sample 2 T_m (°C)	Sample 3 T_m (°C)	Average T_m (°C)	Standard Deviation
0.5	78.5	78.5	78.5	78.5	0.00
30.0	79.0	78.9	78.2	78.7	0.36



Accurate and fast temperature control

The unique Cary in-cuvette temperature probe has a low mass, large surface area, and a superfast feedback loop. The probe provides the instantaneous temperature readings, direct from the sample, that are key to the Cary 3500's ability to ramp the temperature of the sample between 0 and 110 °C with incredible accuracy. This accuracy is achieved even when ramping at up to 30 °C per minute. Temperature accuracy is independent of ramp rate, so you can rely on your temperature readings, even when ramping faster than you thought possible.

This all means more data, better data and faster acquisition.

This information is subject to change without notice.

© Agilent Technologies, Inc. 2018
Published in the USA, October 25, 2018
5994-0335EN

