# BioDrop™ FAQs



## 1. Why do the different path lengths of cuvette offer different levels of performance?

BioDrop is available in different path lengths- 0.5mm and 0.125mm. The lower the path length the higher the concentration of sample that can be measured.

# 2. What is the smallest sample size I can use with BioDrop?

The smallest sample size detected using BioDrop 125 is 0.6µl and using BioDrop 500 is 2.5 µl.

# 3. What is the largest sample size I can use with BioDrop?

Since excess sample volume is squeezed out of the sample area, any sample bigger than the minimum is okay as long as sample wastage is not an issue.

# 4. What is the detection range in $ng/\mu I$ for nucleic acids?

BioDrop 500: Detection limit 1.2ng/µl. Measurement range up to 3500ng/µl.

BioDrop 125: Detection limit 7.1ng/µl. Measurement range up to 12000 ng/µl.

# 5. Can I use BioDrop to measure samples other than DNA/RNA/Oligo or proteins?

BioDrop can be used for other UV/Vis measurements of highly absorbent samples.

## 6. Can BioDrop measure protein in micro-volumes?

Yes. BioDrop can be used for protein measurements by direct UV methods.

## 7. Can BioDrop be used to measure protein in a Bradford assay?

It has been shown that plastic disposable cuvettes are best suited for these assays.

## 8. Is it possible to do kinetics in BioDrop?

Kinetic experiments can be performed using BioDrop as long as all parameters are compatible with the instrument's software applications.

## 9. I have a double beam instrument - do I need to buy 2 BioDrops, if not how would I use it?

There is no need to buy 2 BioDrops. The same device can be used to measure a blank/reference and then the sample solution. A double beam spectrophotometer will then compare the transmittance value of each wavelength of the test sample with that from the reference sample.



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# 10. I want to buy a BioDrop for my existing instrument but I am unsure if I need 15mm or 8.5mm height. How do I choose which one is correct?

The height values refer to the Z-dimension or beam height in the spectrophotometer and must reflect those of the actual instrument used. Please refer to the spectrophotometer user manual.

# 11. Is it possible to work out how BioDrop will perform in my existing instrument without buying it first?

Yes. You can contact your local distributor to arrange a BioDrop demonstration in your own spectrophotometer.

# 12. I am going to purchase a BioDrop but only have budget for 1 path length – which would you recommend?

This will depend on the concentration range of the samples to be measured. It is advised to use the lowest path length of 0.125mm for higher absorption ranges measured in line with the linearity of the instrument.

# 13. I would like to use BioDrop with the Libra dual beam spectrophotometer from Biochrom that I already have – how do I select the appropriate path length?

The Libra range of spectrophotometers is accompanied with software that has all path lengths incorporated in its tools. For existing Libra users, a software upgrade containing BioDrop path lengths will be available.

# 14. I would like to use BioDrop with my existing spectrophotometer but it is not from Biochrom – how do I select the appropriate path length?

Check within the instrument software to see if you can set the relevant BioDrop pathlength, 0.5mm or 0.125mm. If this is not possible check to see if it is possible to enter a dilution factor, if so enter a dilution factor of 20 for the BioDrop 500 and 80 for the BioDrop 125. This will ensure reported concentration values are correct. If it is not possible to enter a dilution factor then the factor used to calculate the concentration can also be changed by multiplying it by 20 or 80 depending on the BioDrop being used.

# 15. What should I use as my blank/reference?

The blank/reference solution should contain everything found in the sample solution except the substance being measured.



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## 16. I've lost one half of my Biodrop, can I purchase a replacement?

Due to the unique manufacturing process of BioDrop each unit is a specially machined match pair and therefore halves cannot be purchased individually.

#### 17. How do you clean BioDrop after use?

Simply wipe with a lint free cloth.

#### 18. Is maintenance required on BioDrop to stay accurate and precise over time?

No maintenance is required on BioDrop. As with any device, BioDrop should be cleaned thoroughly after use.



BioDrop's intelligent design delivers accurate, affordable low volume spectroscopy – from just 1µl