



# SYNERGY TUBE



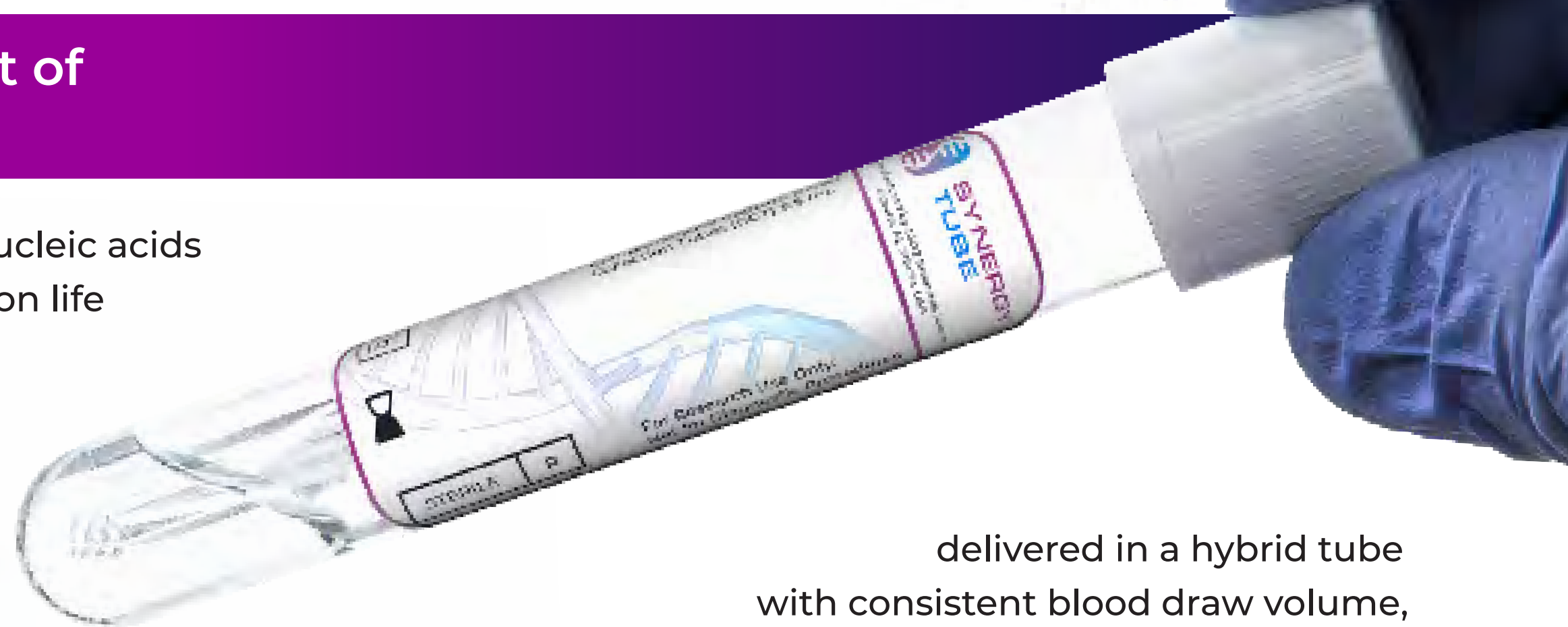


**SYNERGY  
TUBE**

## **A blood collection tube unlike any other.**

**Imagine the best of  
both worlds...**

cfDNA, RNA and gDNA nucleic acids  
with extended preservation life  
without formaldehyde  
or cross-linking



delivered in a hybrid tube  
with consistent blood draw volume,  
contaminant-free, and the durability of plastic.



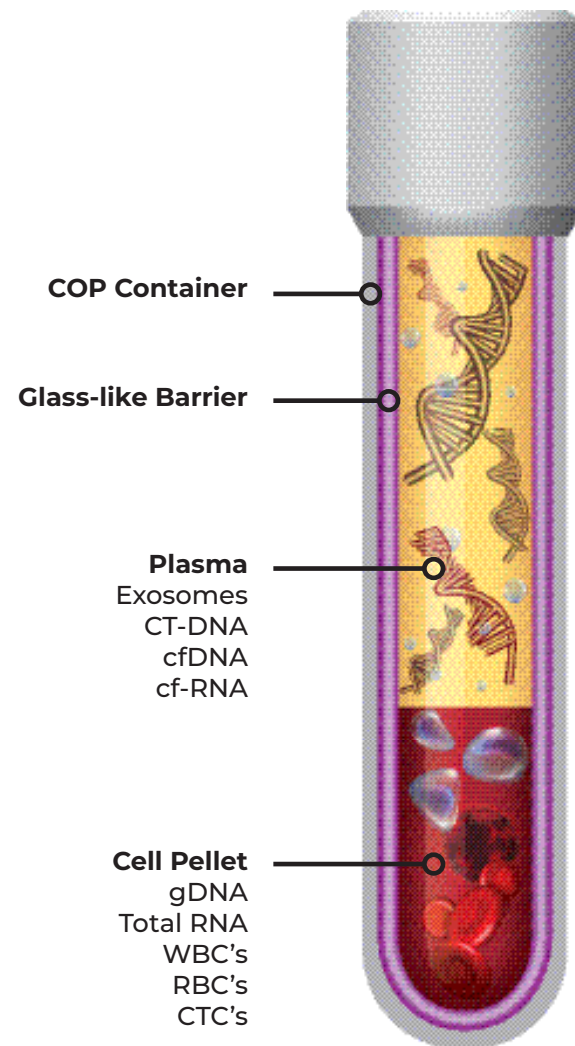
**Revolutionary blood collection technology second to none.**

**All the best properties of plastic and glass in a hybrid blood collection tube.**

- ▶ A cyclic olefin polymer tube with a gas barrier coating system
- ▶ Coating system significantly decreases oxygen permeability to a level approaching borosilicate glass
- ▶ Lower oxygen permeability improves vacuum retention 10x better than ordinary polymers
- ▶ Improved vacuum retention enables consistent and reliable blood draw volume from patient with 2 years of shelf life
- ▶ Pure and inert glass-like surface with no leachables or extractables in the blood specimen
- ▶ Optical clarity and appearance like glass
- ▶ Compatible with industry standard cap closure systems

**Comprehensive Capture of Nucleic Acids**

The Synergy Tube is unbreakable yet has all of the characteristics of glass. cfDNA/RNA and cellular gDNA/RNA can be extracted from the same tube allowing you to pair results from the same sample. Draw volume is consistent and with less hemolysis than any other product on the market. The Synergy Tube is designed to address the need to protect patient samples during transportation to your genetic testing lab.



**SiO<sub>2</sub>**

**A sample unparalleled in quality.**

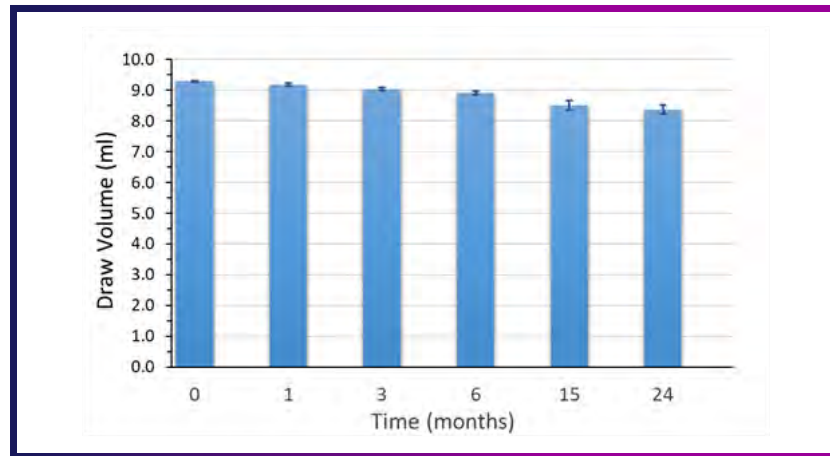
**The sample integrity your products demand.**

- ▶ Allows pairing of cfDNA/RNA with gDNA/RNA from the same sample
- ▶ Preserves cfDNA and gDNA for 30 days at ambient temperature
- ▶ Preserves RNA 7 days at ambient temperature
- ▶ Formaldehyde-free preservative, no cross-linking
- ▶ Prevents hemolysis of blood cells resulting in genomic DNA sample contamination
- ▶ No cold storage shipping required; particularly for RNA
- ▶ Significant reduction in sample preparation at the lab bench



## Innovative technology for higher quality and quantity during collection

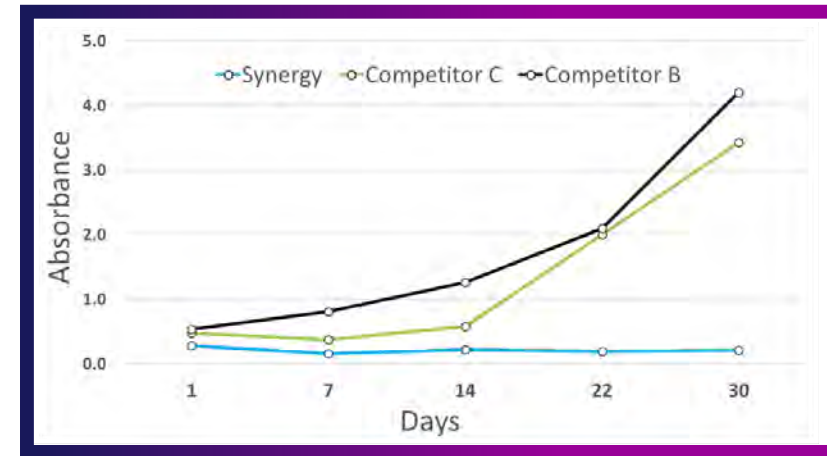
## Unmatched stability from collection to lab



**Maintains a consistent blood draw volume over 24 months of storage at room temperature.**

Draw volume decay rates for 9.5 mL Synergy blood collection tubes over 2 years of storage at ambient

conditions. Tubes were evacuated according to ISO 6710 requirements and stoppered using a standard hemaguard rubber stopper. Four replicates of each BCT type were measured at each time point. The mean and standard deviation are plotted at each time point. The nominal draw volume drops is less than a 10% or more than 8.1 mL over 2 years.

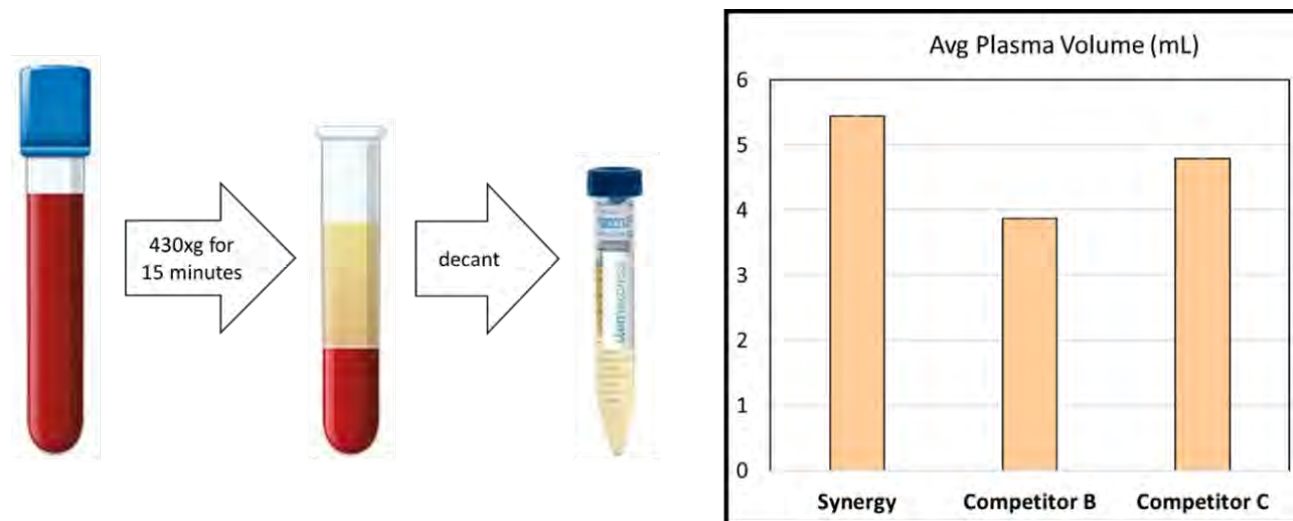


**Synergy preservative prevents hemolysis contamination.**

Hemolysis causes release of hemoglobin and other intracellular contaminants into a blood sample. Synergy

prevents this better than other competitor tubes starting at Day 1 and is maintained through Day 30 and beyond allowing for accurate testing weeks after blood draw.

**Synergy preservative maximizes plasma volume recovery.**



While taking only 8.1ml of blood from a patient, Synergy consistently provides over 5mL of plasma after centrifugation of 15 minutes at 430g.

Innovative technology for higher quality and quantity during collection

Unmatched stability from collection to lab

Feature	Synergy	Competitor A (RNA)	Competitor B (cfDNA)	Competitor C (gDNA)
Room Temperature Stability	RNA: 7 Days cfDNA: 30 Days gDNA: 30 Days	RNA: 3 days	cfDNA: 7 days	No specific claim
Plasma Volume	✓	N/A	✓	✓
Low Hemolysis	✓	N/A	✓	✓
cfDNA stability	✓	N/A	✓	N/A
RNA stability	✓	✓	N/A	N/A
gDNA stability	✓	N/A	N/A	✓

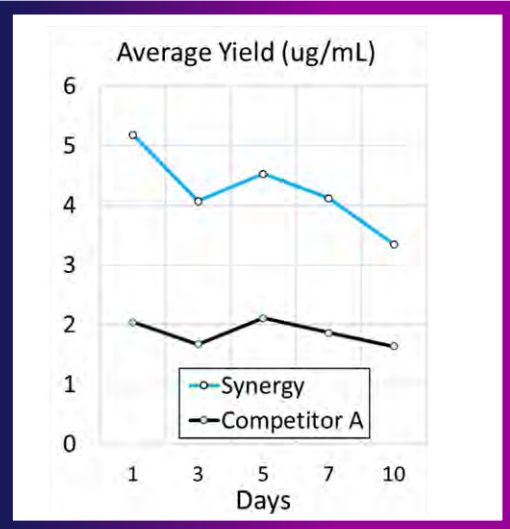
Synergy Preservative	Stability Criteria	4°C	25°C	37°C	Freeze/Thaw
cfDNA	·Yield > 2.5 ng/mL ·Integrity - DIN < 0.5	60 days	30 days	10 days	3X
gDNA	·Yield > 15 µg/mL ·Integrity - DIN > 0.7 ·Purity (A260/280) = 1.8-2.2	60 days	30 days	10 days	3X
RNA	·Yield > 10 µg/tube ·Integrity - RIN > 5 ·Purity (A260/280) = 1.8-2.2	15 days	7 days	3 days	N/A

**Synergy preservative outperforms the competitors for nucleic acid preservation.**

Synergy combines the preservation power of three competitor products in 1 tube. RNA and cfDNA are preserved 2 to 4 times longer than competitors at room temperature. This eliminates the need for cold storage on dry ice in the event of international shipping.

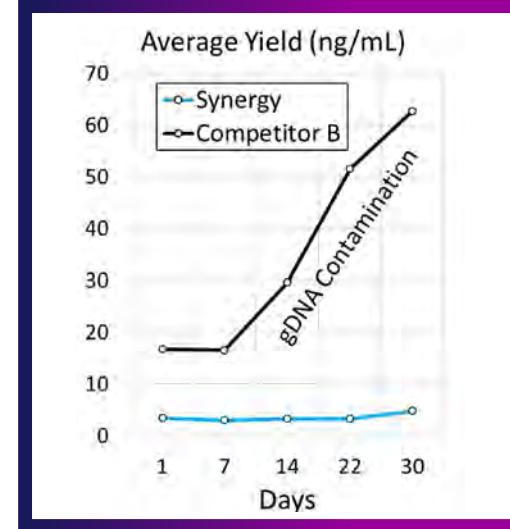
**Provides nucleic acid stability over wide temperature range.**

The extended preservation time of Synergy provides flexibility to the end user in deciding when to extract and test and at what temperature to store and ship the blood samples. Shipping can be done at room temperature without the need of any icepacks or dry ice where RNA content can be extracted and tested 7 days after blood draw while cfDNA and gDNA content can be tested 30 days after.



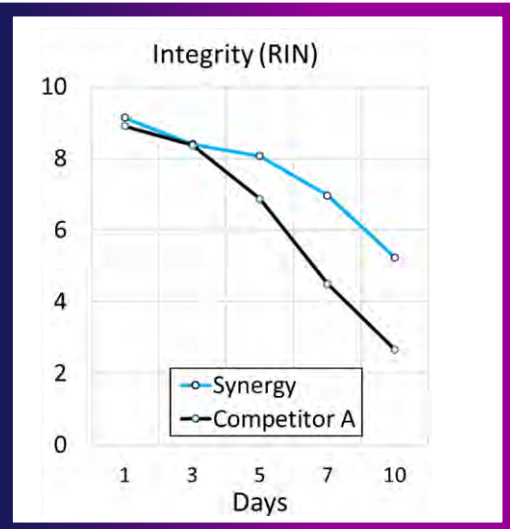
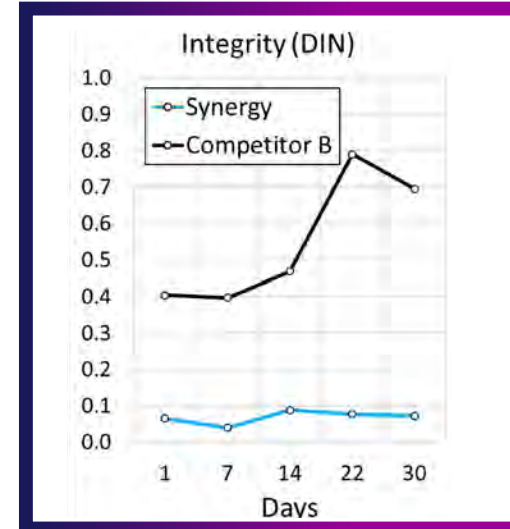
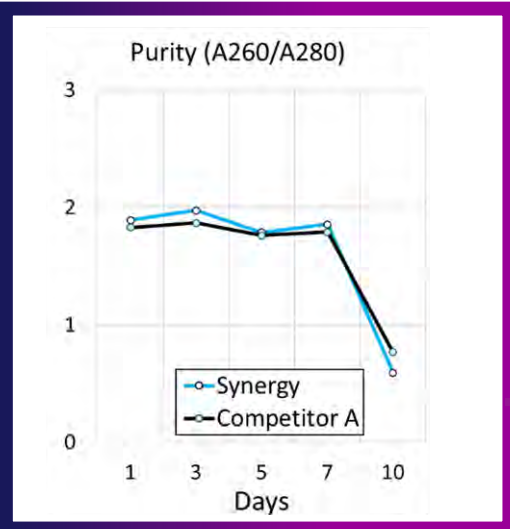
**Synergy preservative maximizes RNA yield and integrity.**

Synergy provides much higher yield and RIN values along with similar purity when compared to standard RNA blood tubes even when left on the bench at room temperature for 7 days (including shipping). Synergy provides the option of skipping centrifugation and plasma decanting when only targeting RNA and gDNA.



**Synergy preservative improved cfDNA purity and integrity.**

Lower DIN values indicates less gDNA contamination in extracted cfDNA, which is not present when using Synergy versus a standard industry competitor. This phenomenon is also observed in the consistent average yield for Synergy. This offers the option of eliminating long purification steps.





# SYNERGY TUBE

## PRODUCT SPECIFICATIONS



Description	Specs
Tube Size	16 x 100mm
Tube Type	Coated COP Tube
BCT Expiration	24 Months
Blood Draw Volume	8.1mL in 9.5mL Tubes
Preservative	Non-formaldehyde, proprietary preservative formulation
Preservative Volume	1.4mL
Description	Specs
Recovered Plasma Volume	Approximately 5.5 mL
Length of cfDNA preservation	Up to 60 days at 4 °C Up to 30 days at 25 °C; Up to 10 days at 37 °C
Length of RNA preservation	Up to 15 days at 4 °C Up to 7 days at 25 °C Up to 3 days at 35 °C
Length of gDNA preservation	Up to 60 days at 4 °C Up to 35 days at 25 °C Up to 10 days at 37 °C

- ▶ **A blood collection tube unlike any other.**
- ▶ **The best combination of nucleic acid yield, purity, and integrity.**
- ▶ **Unparalleled preservation and shelf life.**
- ▶ **Case count 100.**

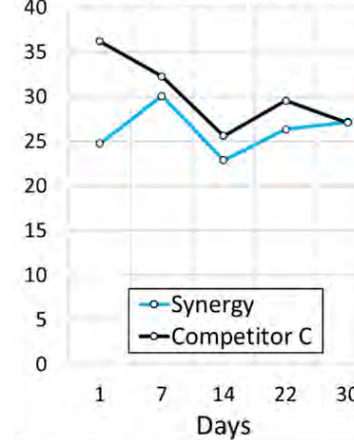
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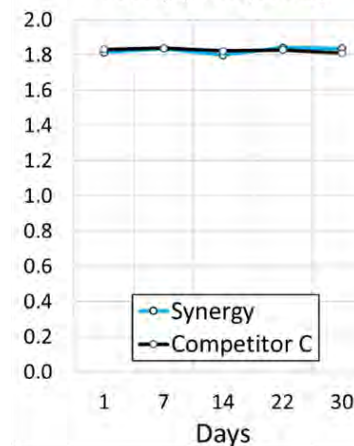
### Synergy preservative has comparable gDNA yield, purity and integrity.

Synergy provides comparable gDNA yield, purity and integrity minimizing the need to collect blood samples from patients in different tubes simplifying shipping, tracking and all downstream testing.

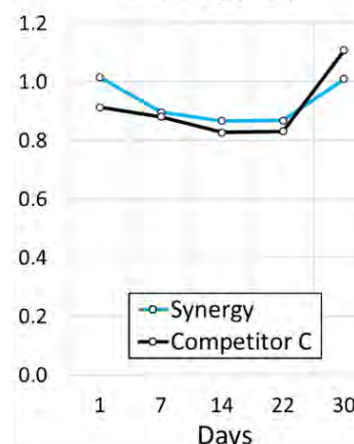
Average Yield (ug/mL)



Purity (A260/A280)



Integrity (DIN)





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