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Typhoid Fever Diagnosis Today

What is enteric fever?

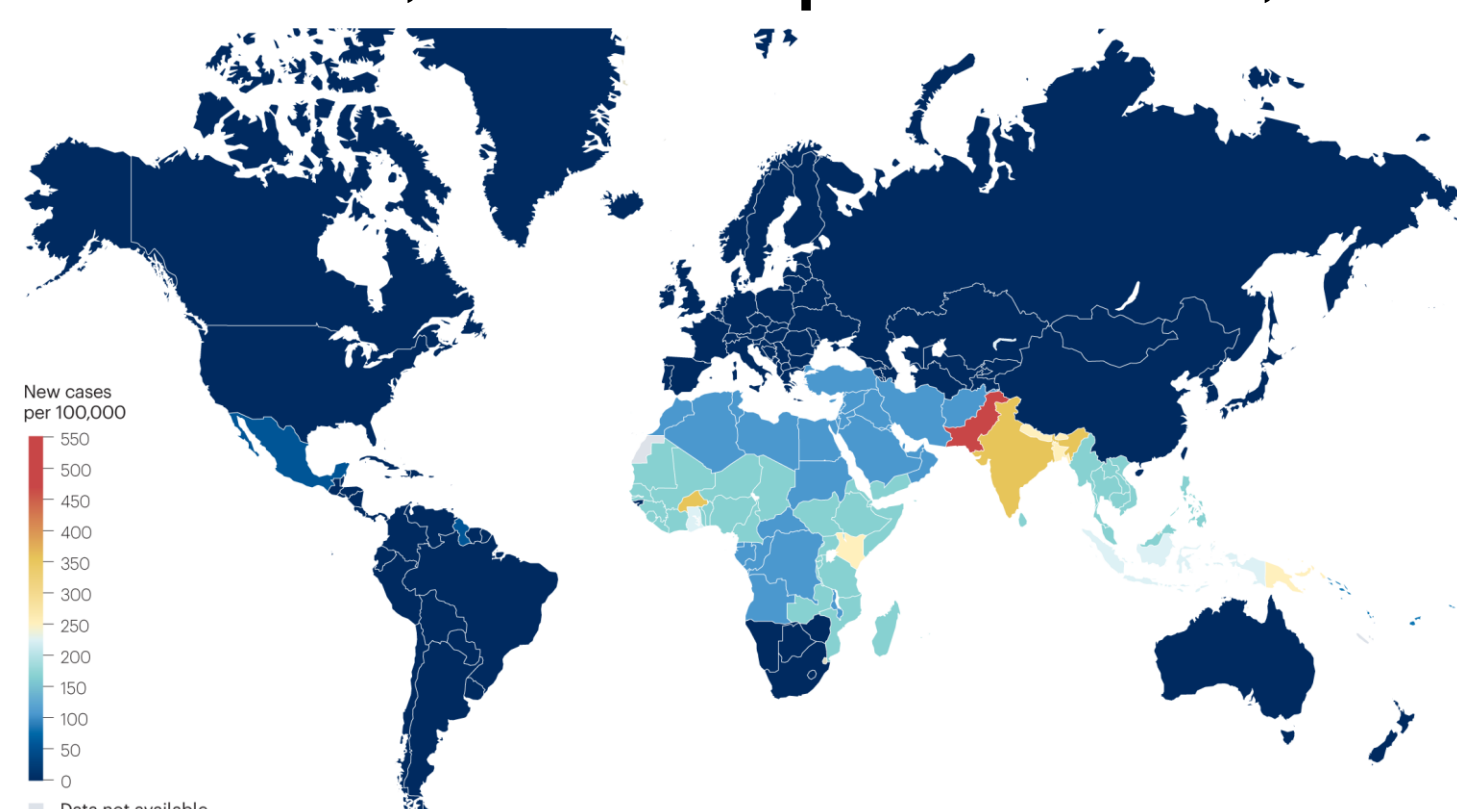
A serious illness caused by *Salmonella* Typhi and Paratyphi.

Common Symptoms

High fever, diarrhea, nausea and abdominal pain.

Global Impact

There are around 17.8 million cases, and up to 208,000 deaths annually worldwide.



Where is enteric fever most commonly found?

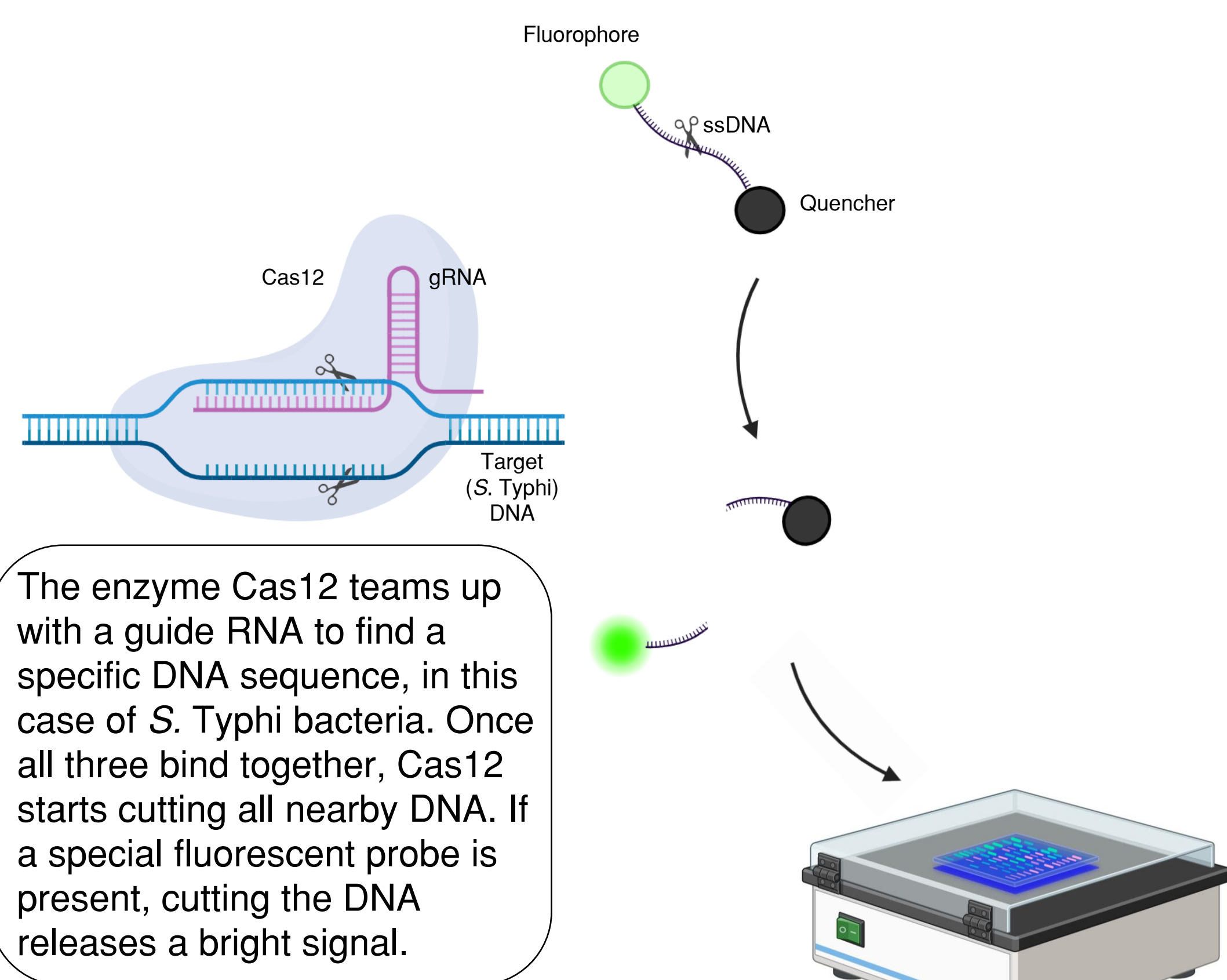
Resource-limited settings.

Current Testing Approaches

	Pros	Cons
PCR	<ul style="list-style-type: none"> Fast Highly accurate 	<ul style="list-style-type: none"> Requires expensive laboratory equipment Requires trained personnel
Blood culture	<ul style="list-style-type: none"> Relatively accurate Relatively low cost 	<ul style="list-style-type: none"> Results take up to 7 days
Widal tests	<ul style="list-style-type: none"> Fast Low cost 	<ul style="list-style-type: none"> Inaccurate

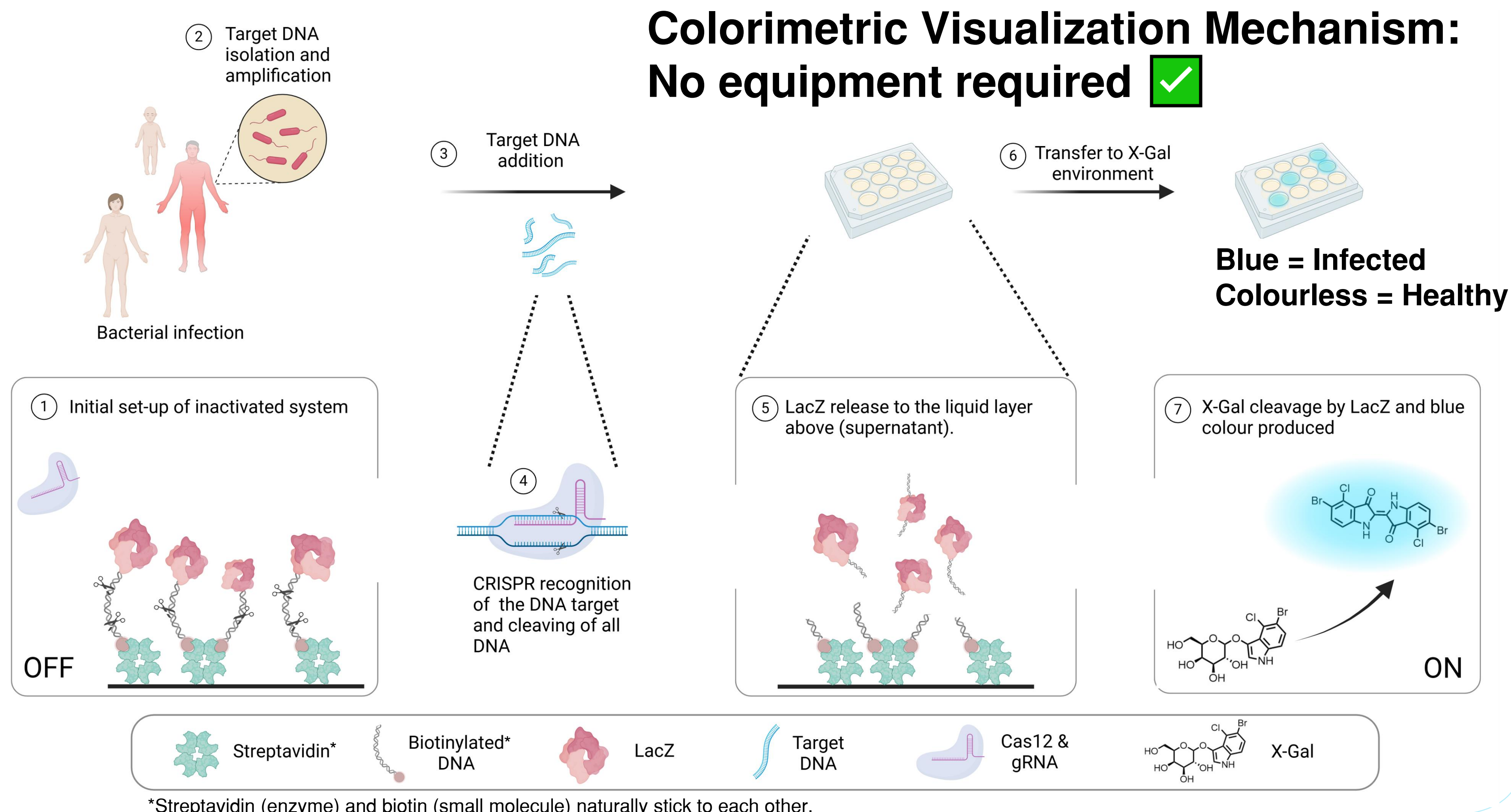
Our Approach: Diagnostic Test Using Colorimetric CRISPR

Standard Visualization Mechanism



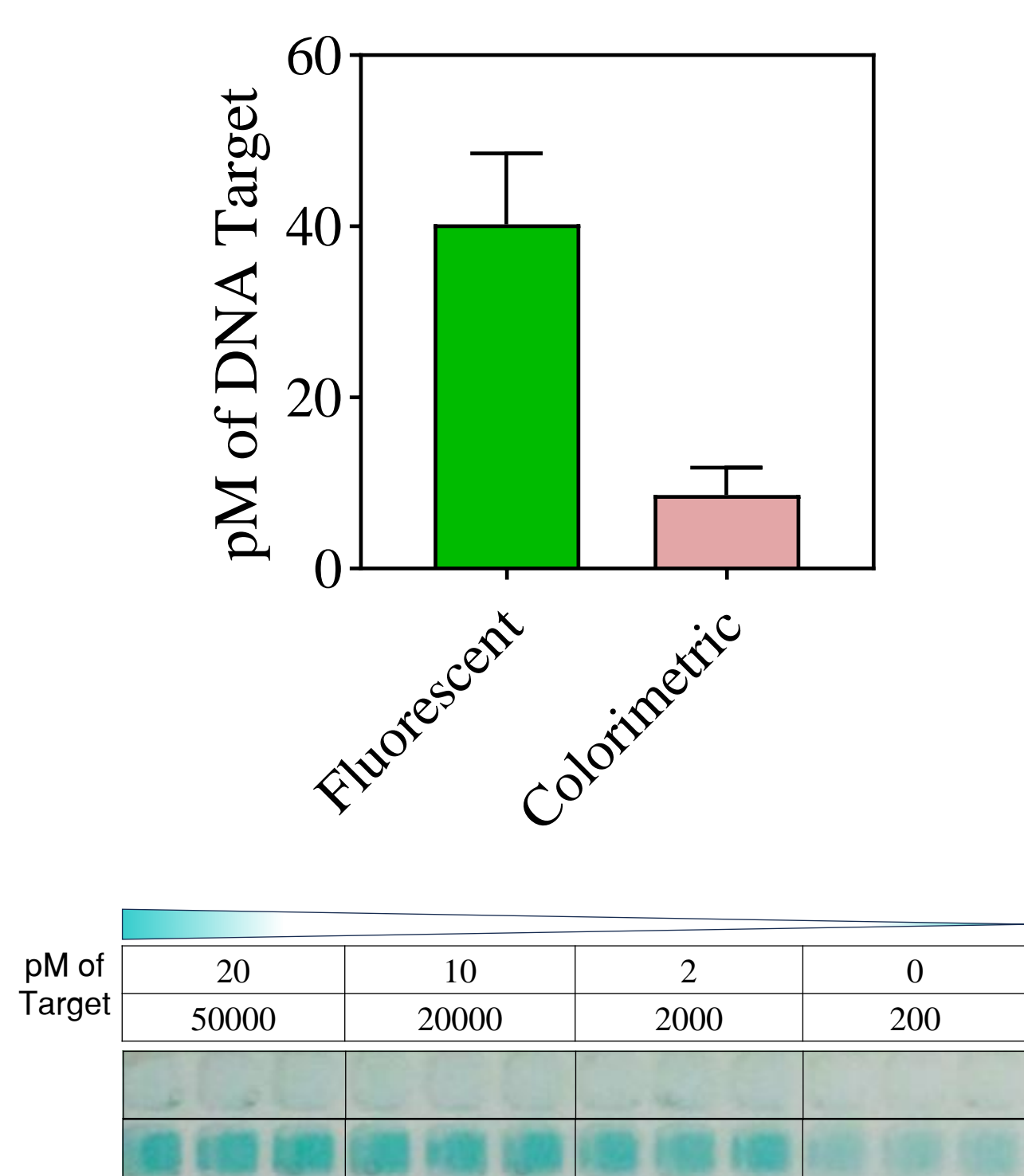
Specialized equipment required to visualize fluorescence

Colorimetric Visualization Mechanism: No equipment required



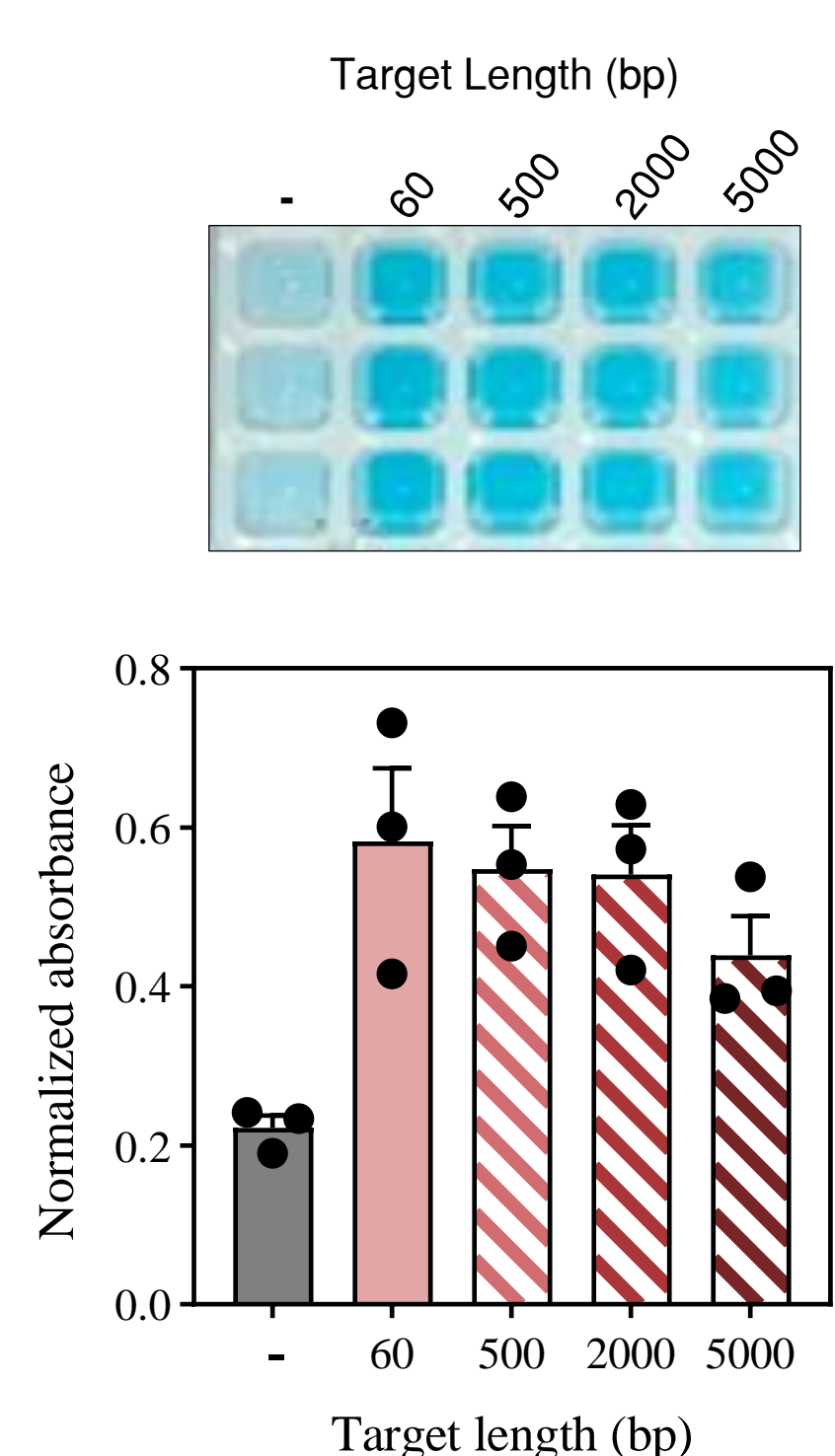
Our Results

Limit of Detection



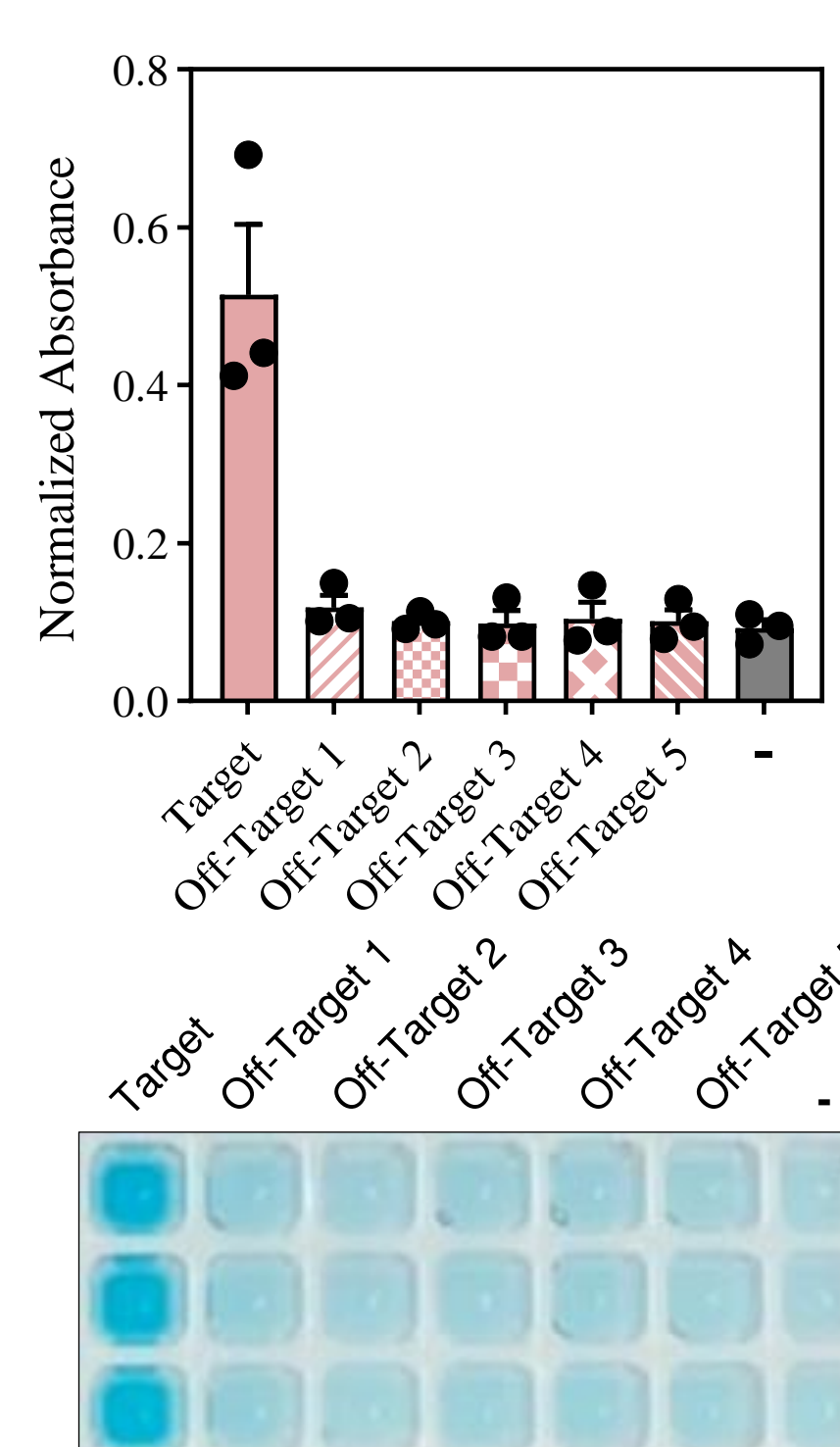
Improved limit of detection compared to the standard fluorescent approach.

Detection of Targets of Varying Lengths



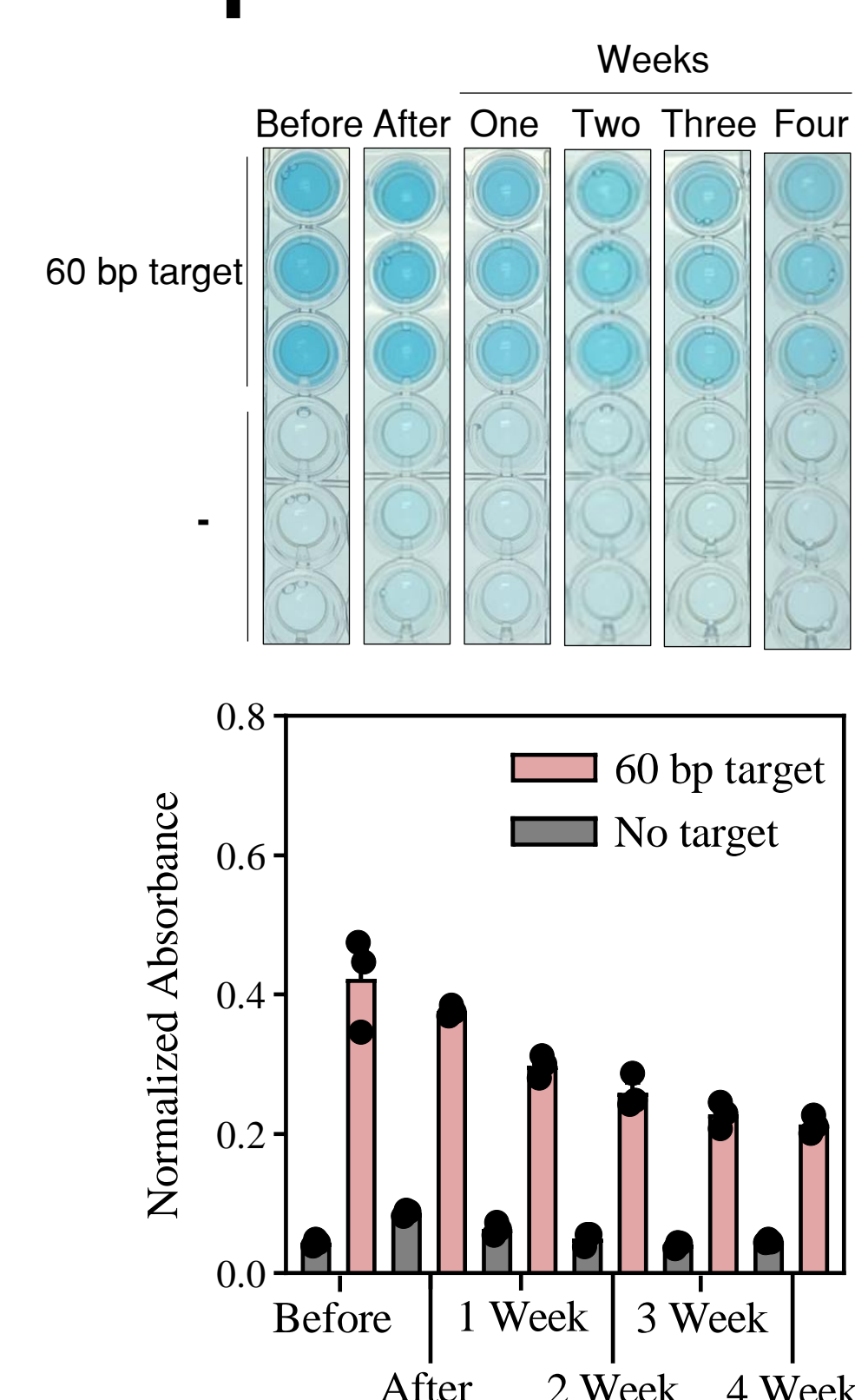
The system showed a clear colour change for all DNA target lengths compared to the no-target control.

Detection of Non-Targets



Non-target DNA sequences not detected by the system.

Activity After Room Temperature Storage



System remains active after one month at room temperature.

Our Solution: Easy-to-Use **No equipment** **No cold storage**